

Big Mountain Resort Pricing Strategy

By Ben Bellman



Image by Leroy Filon

Problem Identification:

How can Big Mountain Resort adapt its ticket pricing strategy by capturing the full value of its diverse infrastructure, product and natural offerings relative to its competitors in order to increase profitability by ~ \$3 million ?



Image by GrafVishenka

<https://www.istockphoto.com/vector/set-of-trendy-vector-ski-pass-template-design-gm584863988-100206407>

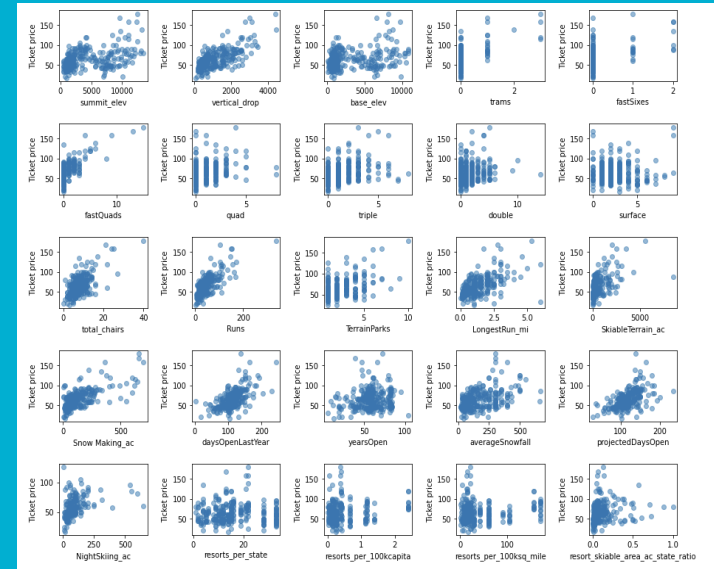
Recommendations and Key Findings:

- **Key Finding:** Model showed BM's features justifies ticket prices closer to **\$95** rather than the current **\$81**.
- **Scenario Analysis Results:**
 - We recommend **scenario 2**, which is to add another chair lift, adding a run and increasing the vertical drop by 150 feet.
 - **Scenario 1** is also a possibility to explore with more cost data.



Modeling Results and Analysis – The Analysis

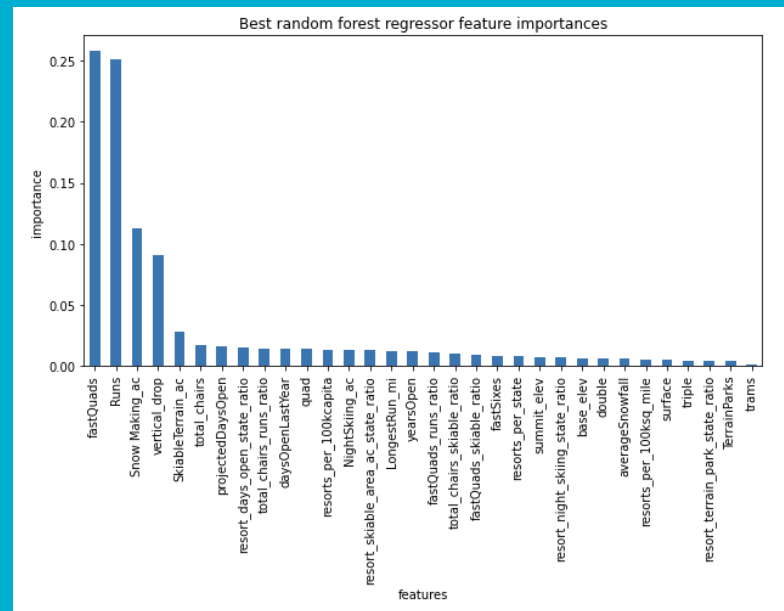
- Compared BM to **276** resorts across > **30** states.
- Explored **36** variables on Weekend ticket prices.
- BS Weekend Ticket Prices stand at **\$81**.
- Average of other resorts prices was **\$64**.
- Assumptions:
 - Receiving **350,000** visitors.
 - Each visitor skis for **5** days on average.
- Developed a model to evaluate which features influence ticket price.



Scatterplot of variables explored that could influence price.

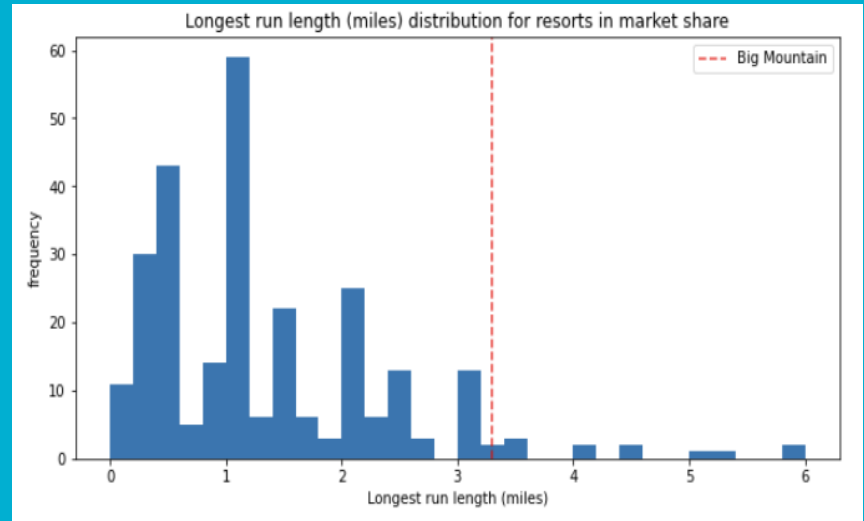
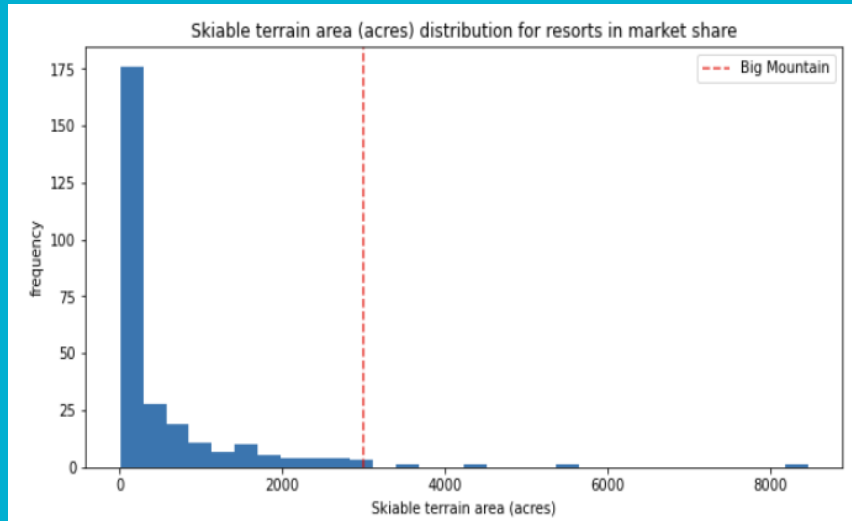
Modeling Results and Analysis – Methods and Variables

- Models explored were *linear regression* and *random-forest*.
- Chose the latter; performed better in predicting the mean.
- Variables which influenced price the most (8):
 - Vertical Drop
 - Snow Making
 - Total Chairs
 - Fast Quads
 - Runs
 - Longest Run
 - Trams
 - Skiable Terrain
- Our model was able to predict price with a Mean Absolute Error of ~\$9.

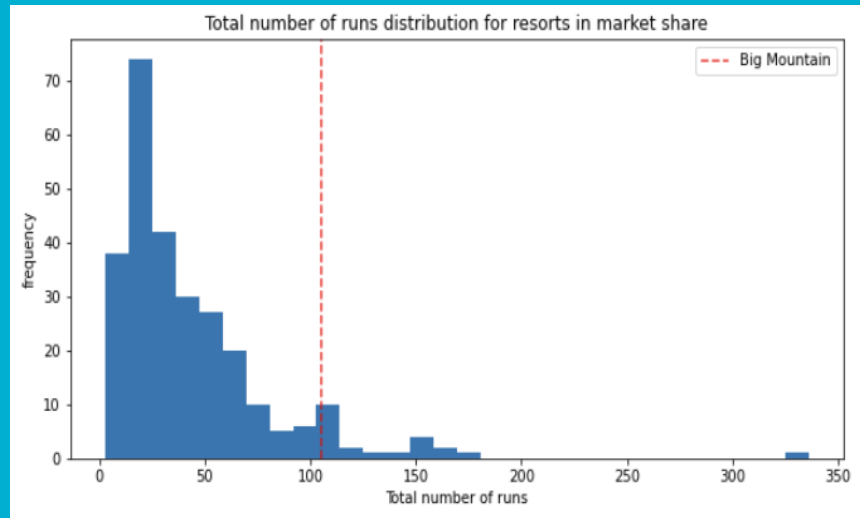
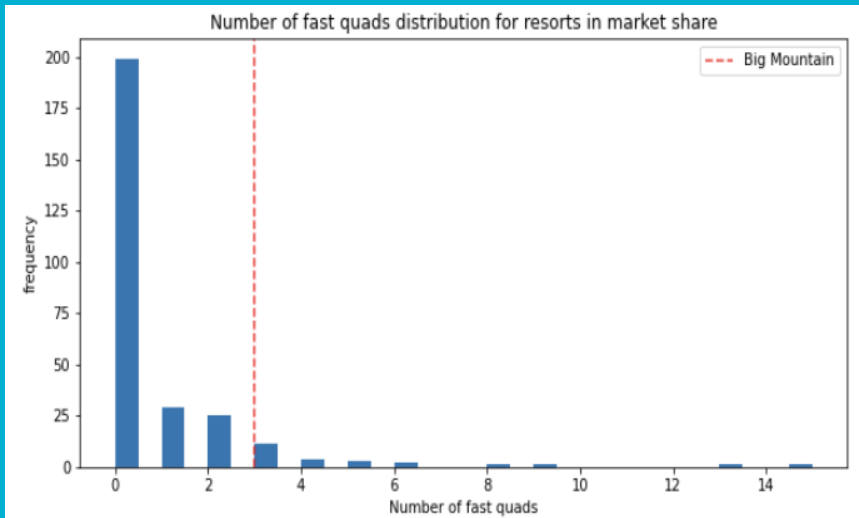


Key Features which influenced Price
in the Random Forest Model

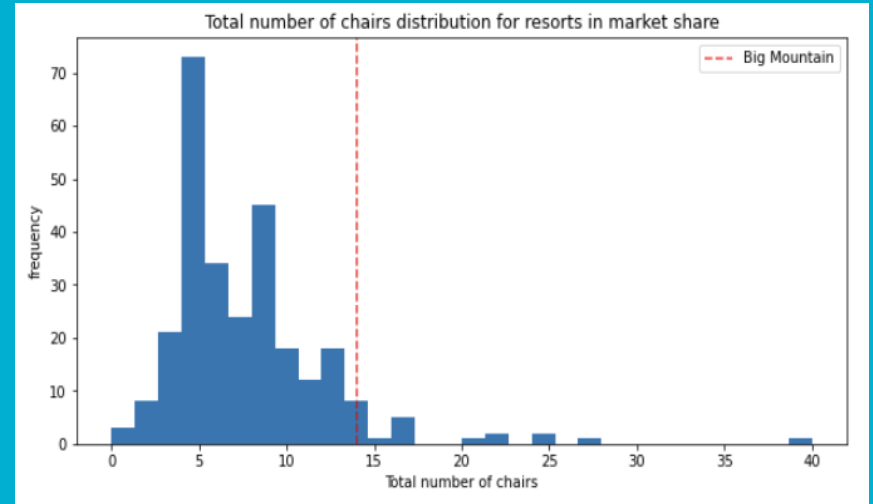
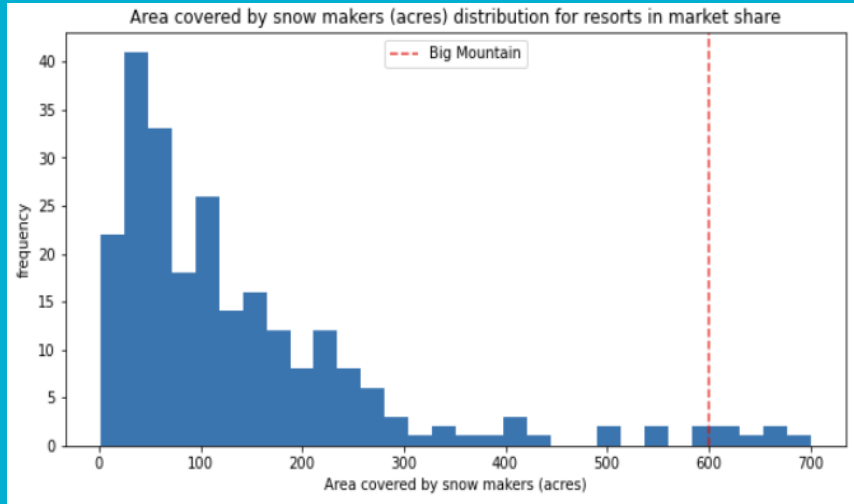
Modeling Results – Big Mountain vs. Competition



Modeling Results – Big Mountain vs. Competition



Modeling Results – Big Mountain vs. Competition



Modeling Results – Scenario Analysis Results

- **Scenario 1:** Closing down up to 10 of the least used runs.

Result: Supports reduction of prices up to \$3 for ticket prices if 10 runs are closed. 5 is what would be recommended.

- **Scenario 2:** Increase the vertical drop + additional chairlift

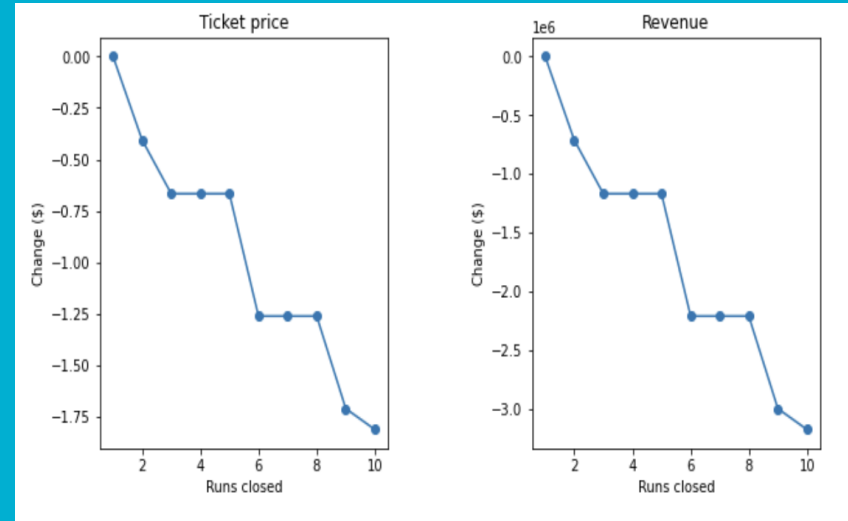
Result: Supports an increase in ticket prices of \$1.99, raising revenues by \$3.47 million.

- **Scenario 3:** Scenario 2 + 2 acres of snow making cover

Result: Same as scenario 2 but will have increased costs with snow making cover.

- **Scenario 4:** Increase the longest run by 0.2 miles

Result: No effect on ticket prices



Scenario 1 Modelling Results

Summary and Conclusion

- Conclusion: Model suggests BM's features support ticket prices at around **\$95**.
- Scenarios:
 - *Scenario 2* will be able to support a change of ticket price of **\$1.99** and generate additional revenue of **\$3.4 million**.
 - *Scenario 1* would need operation cost data.
- Limitations of the model:
 - *Missing Operation Cost data.*
 - *Conduct Surveys to find skiers preferences.*
 - *Elasticity of demand for ticket prices.*

