Big Mountain Resort Data Driven Strategy

Presentation By – Jay Gupta

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The Objectives

Identify opportunities for the Big Mountain Resort to maximize revenue by optimizing

- Ticket prices by comparing their facilities vis-à-vis with other resorts in their market segment using data-driven strategies
- Analyze 4 specific scenario options provided by the Big Mountain team

Analysis of the 4 Scenario Options

Scenario 1: Permanently close down up to 10 of the least used runs in order to reduce the operating cost

Recommendation for Scenario 1

"Compare Revenue Reduction with the Operating Cost Savings to Assess if 5 runs can be closed"
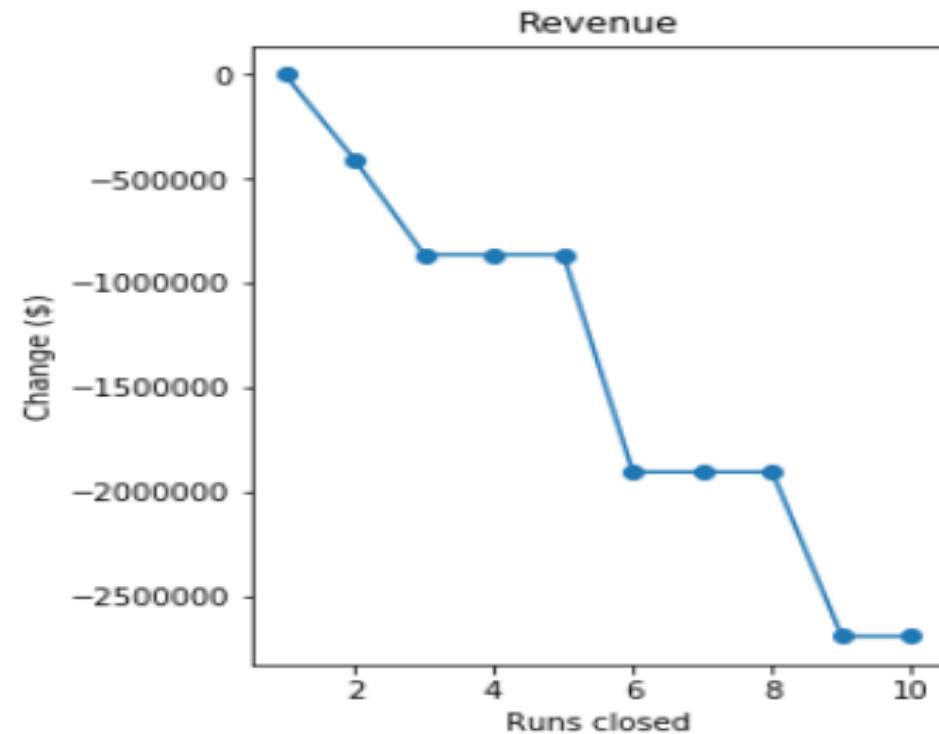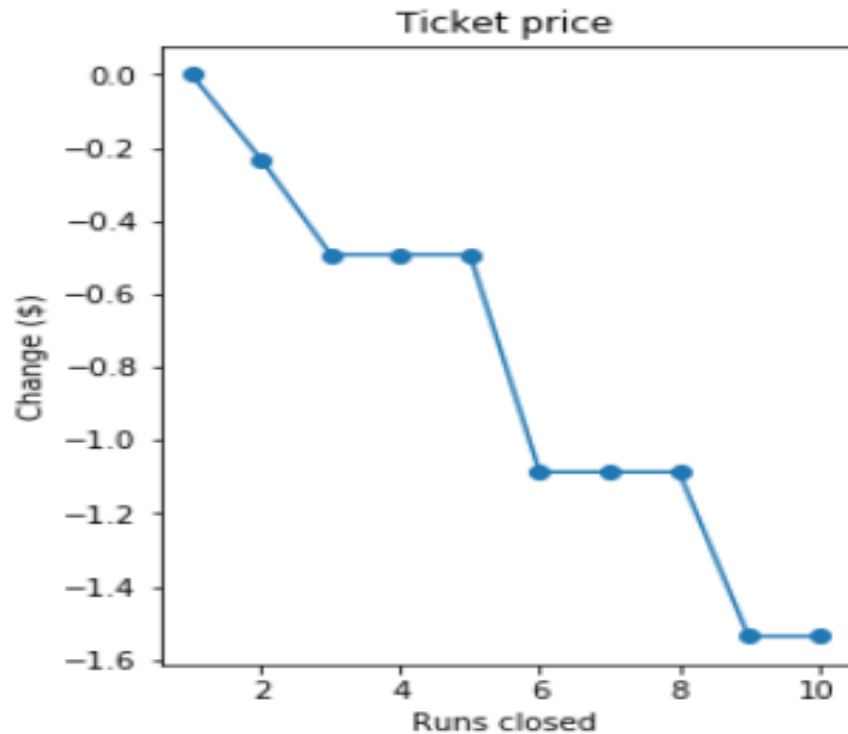
Analysis of the 4 Scenario Options

Scenario 2: Increase the vertical drop by adding a run to a point 150 feet lower down but requiring the installation of an additional chair lift to bring skiers back up, without additional snow making coverage

Recommendation for Scenario 2

"Based on the model, Big Mountain can increase the ticket prices by $1.99 which will amount to increase in revenue by $3,474,638 over the season"

- Big Mountain is adding a run, increasing the vertical drop by 150 feet, and installing an additional chair lift.
- Compare the Net Present Value of the Additional Capital Cost with the Additional Revenue
- Engage Marketing team and Resort Consultant to discuss the pricing increase impact on other marketing aspects

Analysis of the 4 Scenario Options

Scenario 3: Increase the vertical drop by adding a run to a point 150 feet lower down but requiring the installation of an additional chair lift to bring skiers back up, with additional snow making coverage of 2 acres

Recommendation for Scenario 3

"No additional revenue, hence not recommended to explore any further"

- Additional capital cost as well as operating cost of creating and maintaining additional 2 acres for snow coverage with no new benefits and no new revenue

Analysis of the 4 Scenario Options

Scenario 4: Increase the longest run by 0.2 miles and guaranteeing its snow coverage by adding 4 acres of snow making capability

Recommendation for Scenario 4

"No additional revenue, hence not recommended to explore any further"

- Additional capital cost as well as operating cost of creating additional 0.2 miles and developing 4 miles for the snow coverage guarantee with no new benefits and no new revenue

How Model was Developed?

"Industry Standard Data Science Model (DSM) was Utilized to Develop the Ticket Pricing Model"

Data Insights for the Big Mountain Resort

- There are following 4 Dominant Features for the Ticket Pricing Model and any future marketing strategy should be focused on this to optimize the revenue:
  - Fast Quads
  - Runs
  - Vertical Drops
  - Snow Making area

Best random forest regressor feature importances
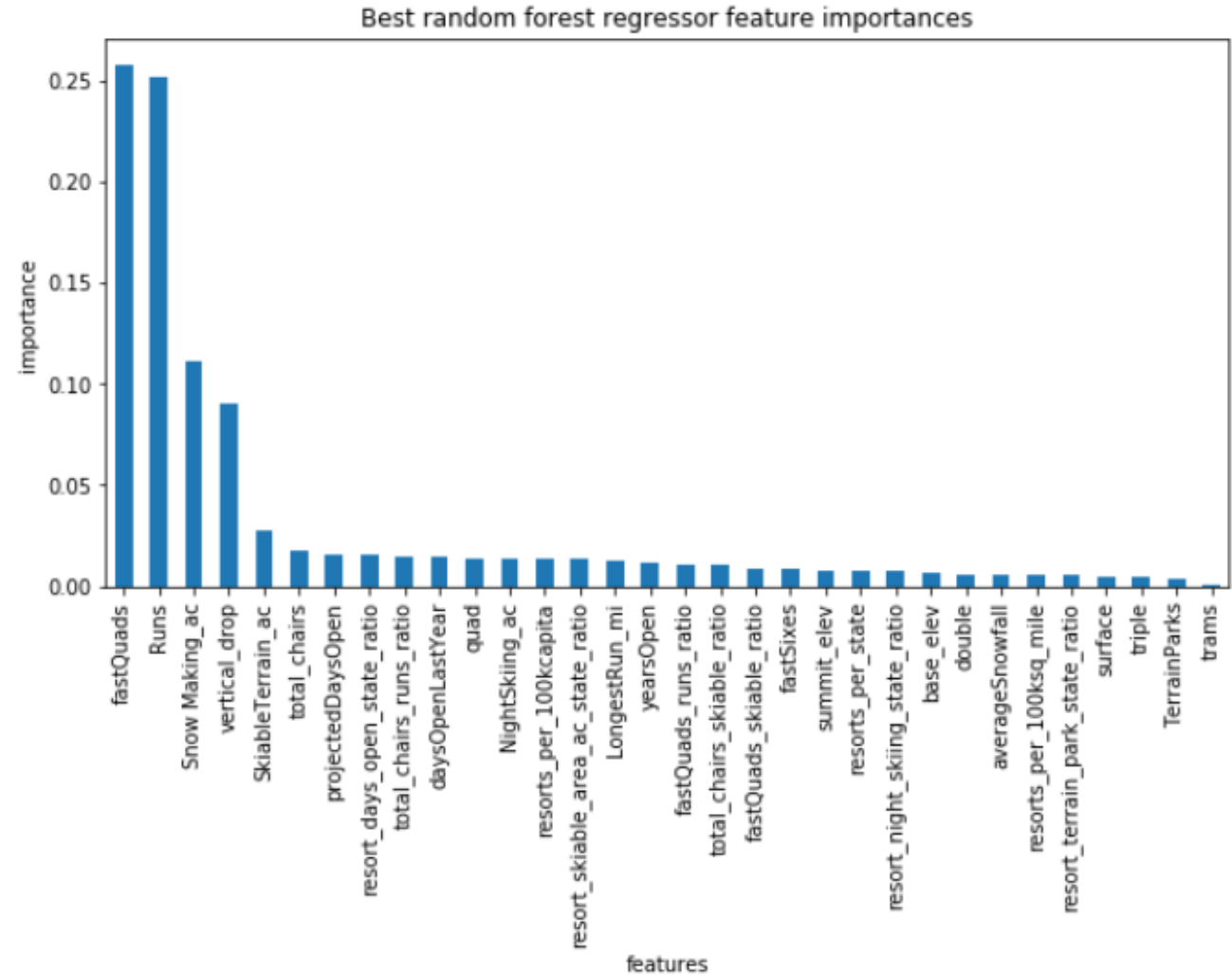
Next Steps

➢ Engage the marketing team to show them the relationships between ticket pricing and resort facilities. And work with them to analyze it further along with their help and a resort pricing consultant to increase the confidence in the model
➢ Keep fine-tuning the model to increase its predictability accuracy
➢ Build a production level ticket pricing model to empower the marketing team