Guided Capstone Project Report

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Problem Statement

Big Mountain Resort has recently made a significant investment which is estimated to result in an additional operating cost of $1,540,000. It is expected the resort will adopt a ticket pricing model that will lead to significant profits in the coming ski season. So far, the resort has used market average plus a premium to set the resort's ticket price. However, it may not be reflective of the resort's amenities.

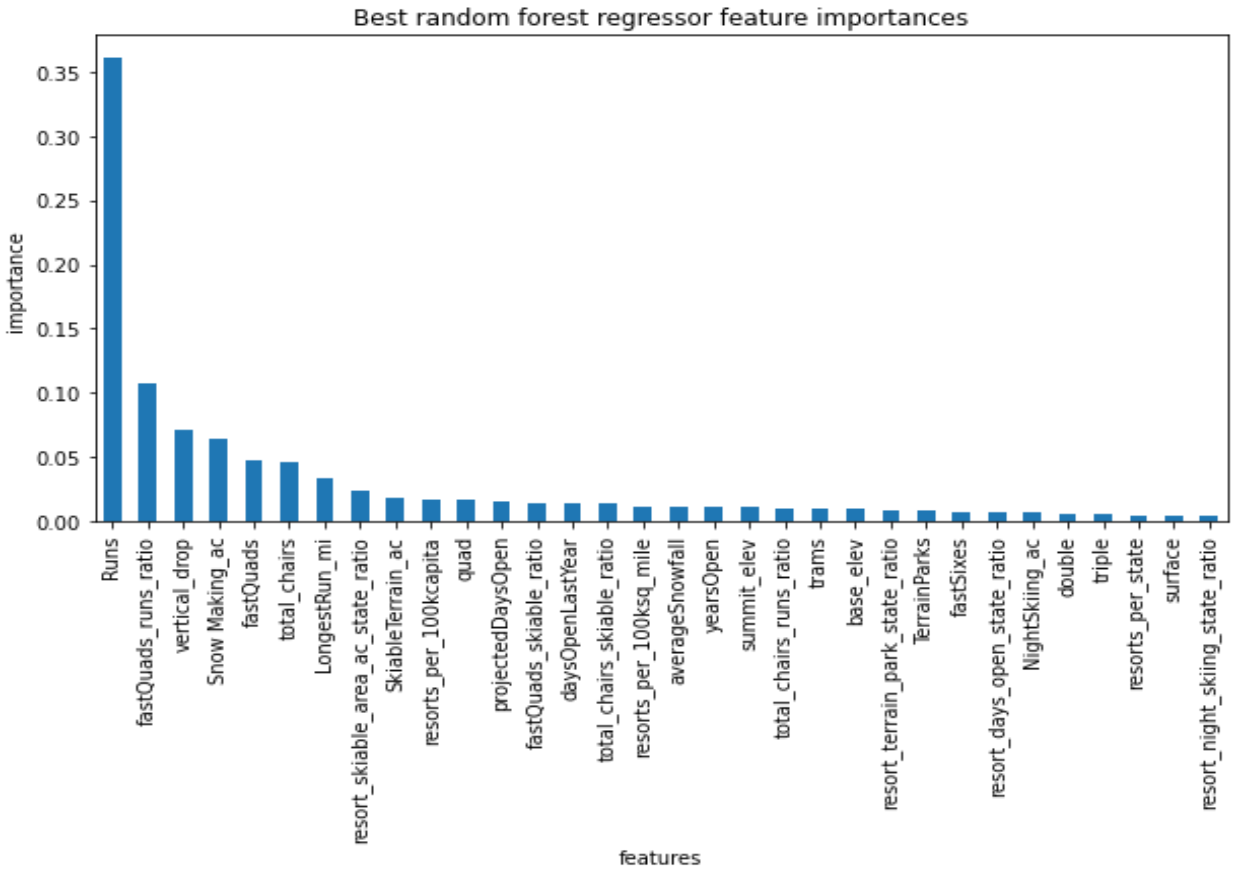
Thus, this project aims to develop a pricing model that will

1. account for the additional operating cost ($1,540,000) during the next ski season
2. capitalize on the resort's facilities to improve profits

Key Results

We explored the relationship between ticket price for an adult and resort features. As seen in the figure below, features with the biggest potential impact on ticket price are:

1. Number of runs
2. Vertical drop
3. Snow making area



Recommendations

Based on the ticket prices and facilities information of more than 200 resorts in the US, we propose a pricing model and make the following recommendation for various scenarios under consideration:

Scenario	Recommendation
Increase ticket price	Our model suggests that a ticket price between $87.49 and $107.17 may be accepted in the market place. However, Big Mountain resort already charges ticket price higher than that of other Montana-based resorts. Thus, a price increase is recommended only when the facilities of Big Mountain are better than those of other resorts in Montana. Increasing the price to a number lower than $87.49 should also be discussed.
Close up to 10 of the least used runs.	Estimated savings after closing 6 of the least used runs would cover the additional operational cost of $1,540,000. Closing of 10 least used runs would lead to additional savings at the current ticket price. Big Mountain has more runs than majority of the ski resorts in the US. Thus, closing down a few runs may not affect the customer sentiment. These options should be discussed further.
Add a run, increase the vertical drop by 150 feet, and install an additional chair lift	Our model suggests that this scenario may lead to $392,000 of increased revenue. However, this amount does not cover the new chair lift's operational costs and increased operational cost of adding another chair lift. Thus, this option is not recommended.
Add a run, increase the vertical drop by 150 feet, install an additional chair lift, and add 2 acres of additional snow making	Our model suggests that this scenario may also lead to $392,000 of increased revenue. Thus, this option is not recommended as well.
Increase the longest run by 0.2 miles and guarantee its snow coverage by adding 4 acres of snow making capability	According to our model, this scenario does not lead to any additional revenue. Thus, this option is also not recommended.

Further Work

- A better pricing model can take the following factors into account and increase the revenue: number of visitors per season – during weekdays and weekends, ticket prices in previous seasons, installation of additional facilities, relevant increase in operating costs, its impact on the ticket prices and number of visitors in past seasons, and visitor age. If such visitors' history is available, the current model can be modified to estimate the highest permissible price increase without significantly sacrificing the number of visitors.
- Alternatively, Big Mountain resort can study the impact of higher prices on the number of visitors by increasing the weekend ticket prices for the next season.