Price Modeling

Big Mountain Resort

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Problem Identification

- Modifying Big Mountain's pricing strategy in order to recoup the increase in operating costs (due to the new chair lift)
- Determining cost-efficient ways to capitalize on all facilities of Big Mountain
- Examining ski resort market trend to analyze similar price models to draw insight from

Analysis

- Used the AdultWeekend ticket price to model, since it had the fewest missing values
- Determined that the Random Forest model performed the best at predicting ticket prices
- Determined that, according to the model, Big Mountain can charge $94.22 for its adult weekend ticket (current price = $81)

Recommendation

- We cannot take the calculated amount ($94.22) as our new ticket price, since we cannot assume that all the other resorts that we used to model our price on have perfect pricing models.
- Examined a few ways to modify Big Mountain's facilities and their respective revenue support, including changing the number of runs, the height of the vertical drop, and the number of chair lifts.

Recommendation

- Determined that closing any number of runs in the resort does not result in an increase in the modeled price.
- Determined that adding a run, increasing the vertical drop by 150 feet, and adding an additional chair lift supports a $1.99 increase in the modeled ticket price and a $3474638 increase in the total revenue for the upcoming year, assuming 35000 visitors per year and 5 days of skiing per visitor.

Summary

- With data to back it up, my recommendation is to increase the number of runs by 1 and increase the vertical drop by 150 feet, which will increase revenue by $3474638 this season.
- The modeled scenario also calls for the installation of a new chair lift, but that has already been installed recently (with a $1540000 increase in operating costs this season).
- The goal was to increase revenue by at least $1540000 in order to recoup the increase in costs, but my proposed plan almost doubles the original goal.