04.30.2023

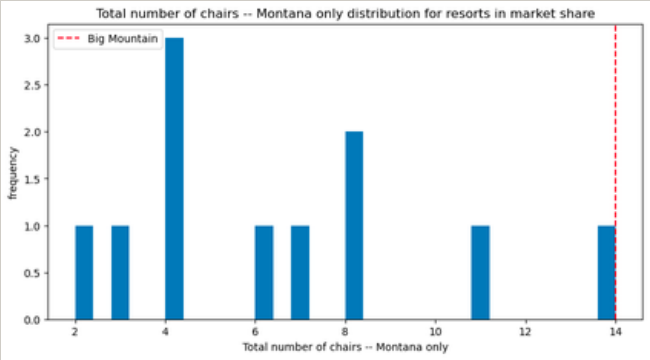
THE FUTURE OF BIG MOUNTAIN

New

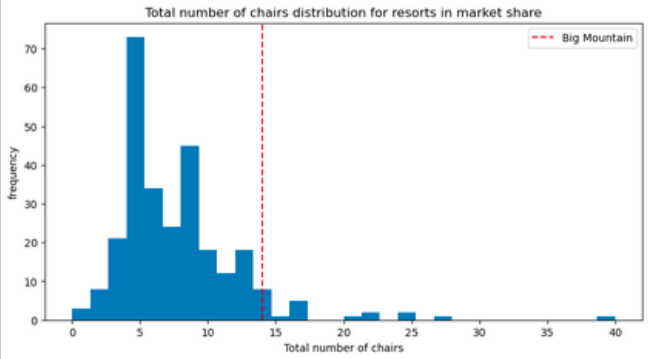
Chairlift

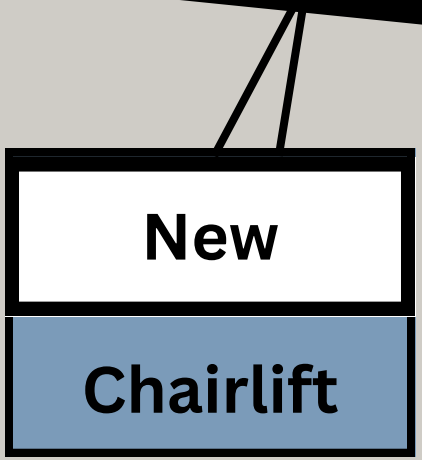
With the addition of a new chair lift, the gap widdens between us and the nearest competitor in Montana, and nationally, places us near the top of number of resorts.

Montana Resorts



National Resorts





The drawback is it has increased our annual operations cost pushing us to reexamine opportunites for for new revenue or new cutbacks. Perhaps raising our ticket prices or shutting down some runs.

$1,540,000

OPERATIONAL COSTS PER YEAR

$81

CURRENT ADULT TICKET PRICE

105

CURRENT NUMBER OF RUNS

FINDINGS

$95.87

BASED ON MODELING FEATURES OF BIG MOUNTAIN AGAINST NATIONAL SKI RESORTS, THIS IS WHERE TICKET PRICES SHOULD BE

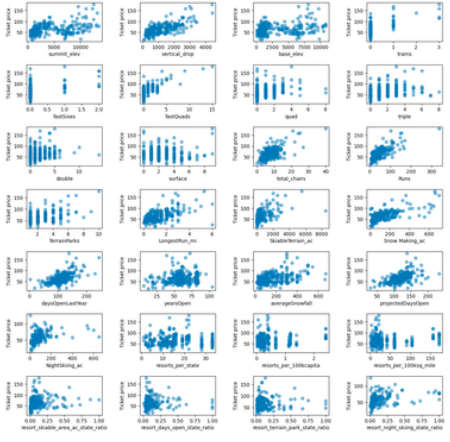
5 runs

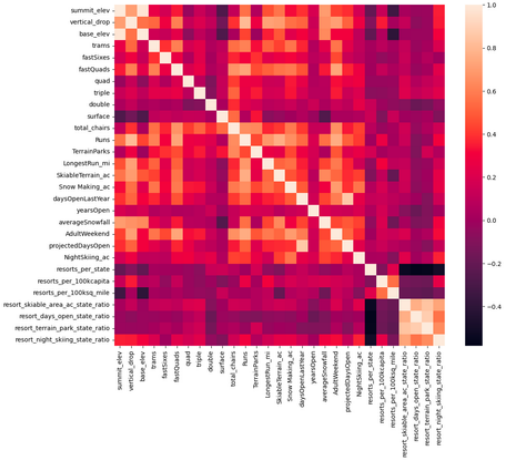
THE AMOUNT OF ESTIMATED RUNS THAT COULD BE CLOSED WITH A MINIMUM LOSS TO TICKET PRICES AND REVENUE

INITIAL ALGORITHMS FINDINGS

- Fast quads
- Runs
- Snow making
- Vertical Drop
- Chairs
- Resorts/100K capita
- Longest Run

To find which features of ski resorts had the best correlation to ticket prices, I used a scaled PCA transformation and made a heat map and a collection of scatter plots.

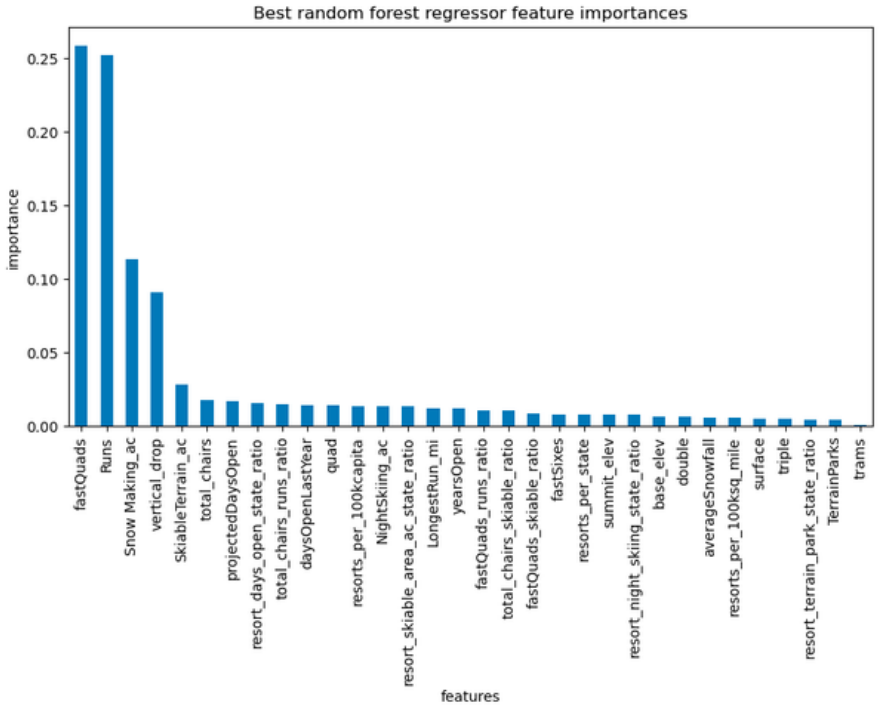




RANDOM FOREST'S FEATURE IMPORTANCES

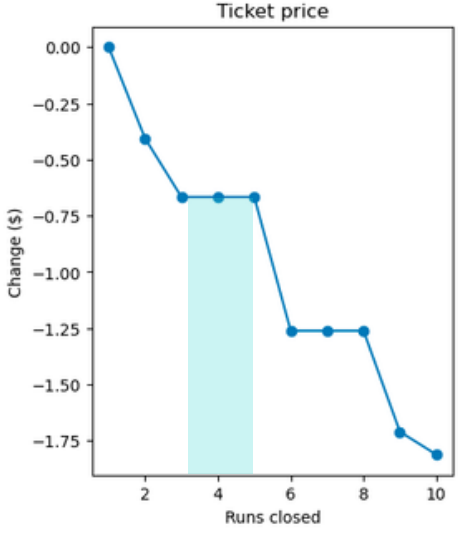
- Fast quads
- Runs
- Snow making
- Vertical Drop

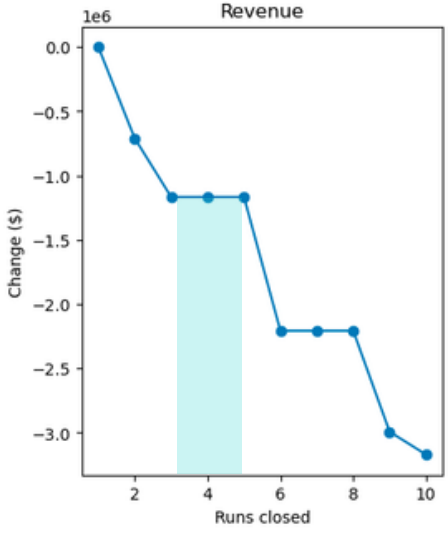
After deciding on running a random forest regression because of less variablity, these are the top features of ski resorts. Something to look into would be the addition of another fast quad.



CUTTING RUNS SCENARIO -$0.67

Here are graphs showing predicted ticket price adjustments and revune lost for number of runs closed. Notice the plateau from 3 to 5 runs closed.





RAISE TICKET PRICE TO $96!

WITHOUT KNOWING HOW CLOSING RUNS AFFECT OPERATIONAL COSTS, MY SUGGESTION IS TO RAISE TICKET PRICES. THIS WILL BRING IN AN ESTIMATED INCREASE OF...

$26,250,000*

*Estimate based on 350,000 visitors per year with an average of 5 ticekts per visitor