Big Mountain Ski Resort

The purpose of this data science project is to come up with a pricing model for ski resort tickets in our market segment. Big Mountain suspects it may not be maximizing its returns, relative to its position in the market. It also does not have a strong sense of what facilities matter most to visitors, particularly which ones they're most likely to pay more for. This project aims to build a predictive model for ticket price based on a number of facilities, or properties, boasted by resorts (*at the resorts).* This model will be used to provide guidance for Big Mountain's pricing and future facility investment plans.

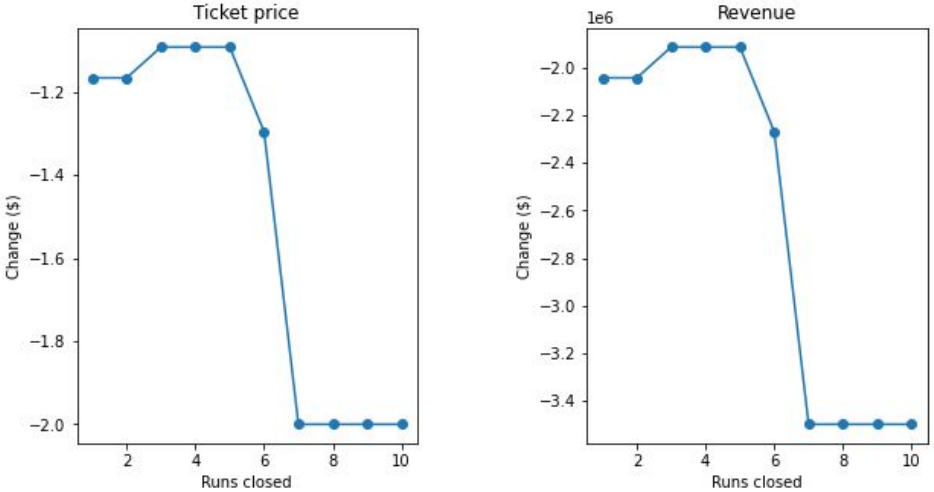
Most Beneficial Scenario

In this scenario, Big Mountain is adding a run, increasing the vertical drop by 150 feet, and installing an additional chair lift.

- This scenario increases support for ticket price by $1.85

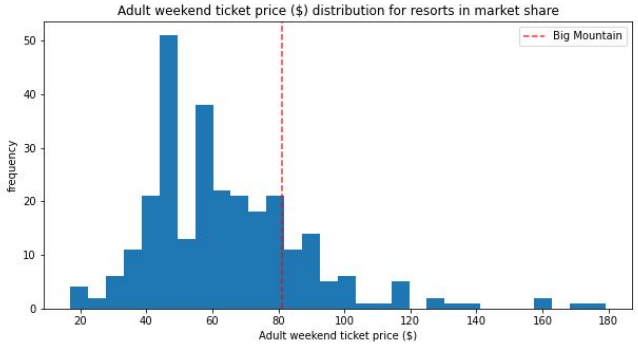
- Over the season, this could be expected to amount to $3240741

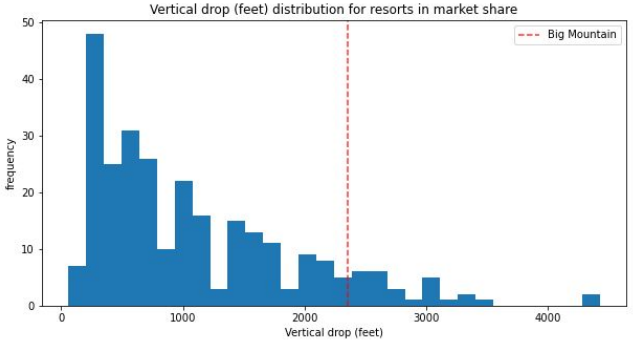
Closing Runs is detrimental to revenue.

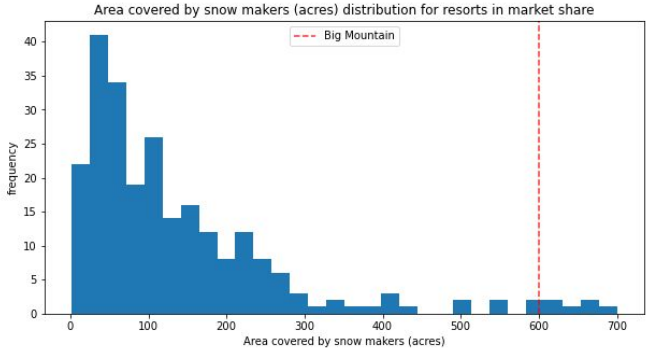


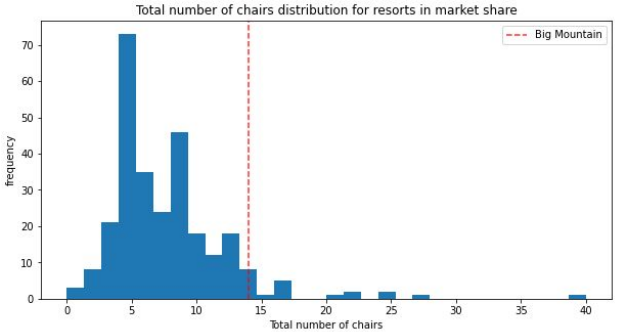
The model says closing one run makes no difference. Closing 2 and 3 successively reduces support for ticket price and so revenue. If Big Mountain closes down 3 runs, it seems they may as well close down 4 or 5 as there's no further loss in ticket price. Increasing the closures down to 6 or more leads to a large drop.

Where Big Mountain Resort is compared to others.









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Name	Big Mountain Resort
Region	Montana
state	Montana
summit_elev	6817
vertical_drop	2353
base_elev	4464
trams	0
fastSixes	0
fastQuads	3
quad	2
triple	6
double	0
surface	3
total_chairs	14
Runs	105
TerrainParks	4
LongestRun_mi	3.3
SkiableTerrain_ac	3000
Snow Making_ac	600
daysOpenLastYear	123
yearsOpen	72
averageSnowfall	333
AdultWeekend	81
projectedDaysOpen	123
NightSkiing_ac	600
resorts_per_state	12
resorts_per_100kcapita	1.12278
resorts_per_100ksq_mile	8.16104
resort_skiable_area_ac_state_ratio	0.140121
resort_days_open_state_ratio	0.129338
resort_terrain_park_state_ratio	0.148148
resort_night_skiing_state_ratio	0.84507
total_chairs_runs_ratio	0.133333
total_chairs_skiable_ratio	0.00466667
fastQuads_runs_ratio	0.0285714
fastQuads_skiable_ratio	0.001

Conclusion

Big Mountain charges around $80 for Adult Weekend tickets. Increasing Runs by 1, Vertical Drop by 150ft, and Total Chairs by 1 would allow increase in ticket price by $1.85, generating $3240741 over the season. Adding additional snow making area makes no difference to estimated season revenue, and neither does increasing longest run. Be cautious with run closures as more than 3-4 closures can make a big impact on revenue.

P.S. : This is assuming the number of visitors over the season is 350,000 and, on average, visitors ski for five days.