

Big Mountain Ski Resort Pricing Strategy

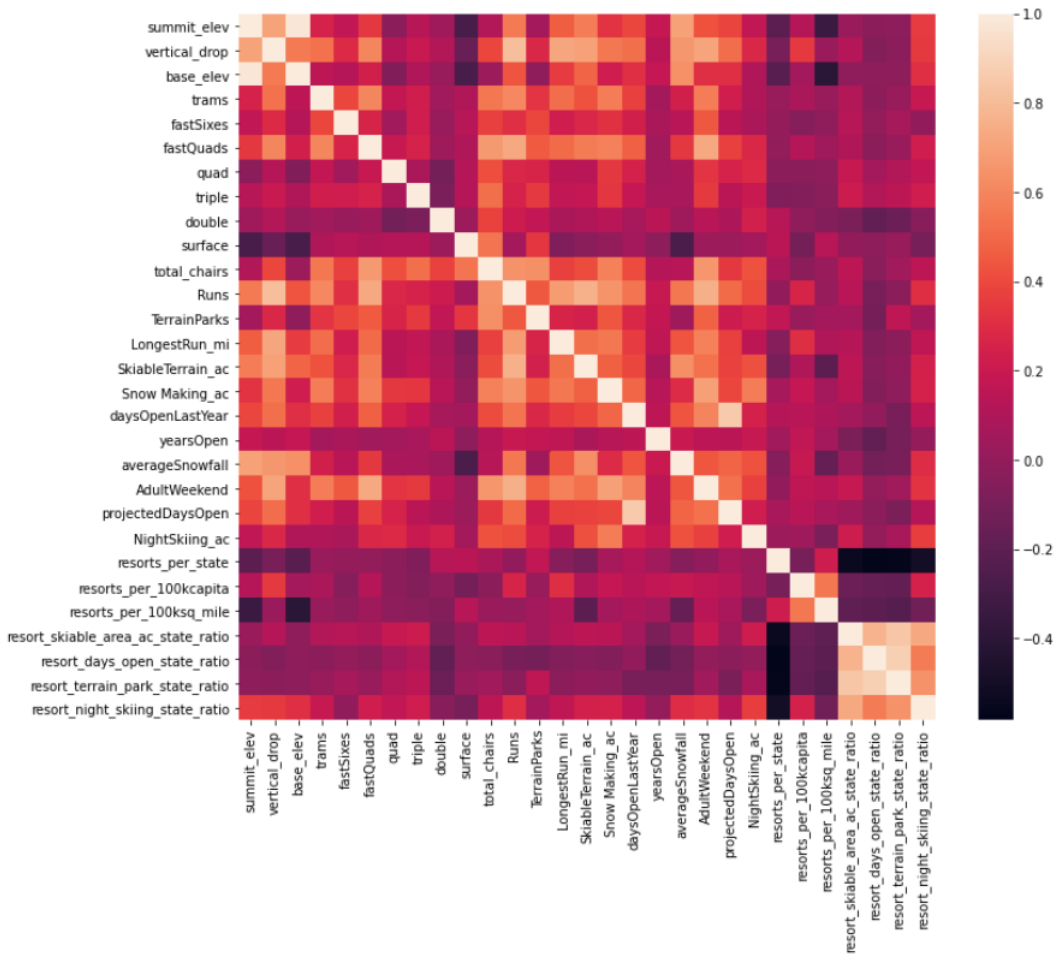
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Problem identification

	count	mean	std	min	25%	50%	75%	max
summit_elev	330.0	4591.818182	3735.535934	315.0	1403.75	3127.5	7806.00	13487.0
vertical_drop	330.0	1215.427273	947.864557	60.0	461.25	964.5	1800.00	4425.0
base_elev	330.0	3374.000000	3117.121621	70.0	869.00	1561.5	6325.25	10800.0
trams	330.0	0.172727	0.559946	0.0	0.00	0.0	0.00	4.0
fastEight	164.0	0.006098	0.078087	0.0	0.00	0.0	0.00	1.0
fastSixes	330.0	0.184848	0.651685	0.0	0.00	0.0	0.00	6.0
fastQuads	330.0	1.018182	2.198294	0.0	0.00	0.0	1.00	15.0
quad	330.0	0.933333	1.312245	0.0	0.00	0.0	1.00	8.0
triple	330.0	1.500000	1.619130	0.0	0.00	1.0	2.00	8.0
double	330.0	1.833333	1.815028	0.0	1.00	1.0	3.00	14.0
surface	330.0	2.621212	2.059636	0.0	1.00	2.0	3.00	15.0
total_chairs	330.0	8.266667	5.798683	0.0	5.00	7.0	10.00	41.0
Runs	326.0	48.214724	46.364077	3.0	19.00	33.0	60.00	341.0
TerrainParks	279.0	2.820789	2.008113	1.0	1.00	2.0	4.00	14.0
LongestRun_mi	325.0	1.433231	1.156171	0.0	0.50	1.0	2.00	6.0
SkiableTerrain_ac	327.0	739.801223	1816.167441	8.0	85.00	200.0	690.00	26819.0
Snow Making_ac	284.0	174.873239	261.336125	2.0	50.00	100.0	200.50	3379.0
daysOpenLastYear	279.0	115.103943	35.063251	3.0	97.00	114.0	135.00	305.0
yearsOpen	329.0	63.656535	109.429928	6.0	50.00	58.0	69.00	2019.0
averageSnowfall	316.0	185.316456	136.356842	18.0	69.00	150.0	300.00	669.0
AdultWeekday	276.0	57.916957	26.140126	15.0	40.00	50.0	71.00	179.0
AdultWeekend	279.0	64.166810	24.554584	17.0	47.00	60.0	77.50	179.0
projectedDaysOpen	283.0	120.053004	31.045963	30.0	100.00	120.0	139.50	305.0
NightSkiing_ac	187.0	100.395722	105.169620	2.0	40.00	72.0	114.00	650.0

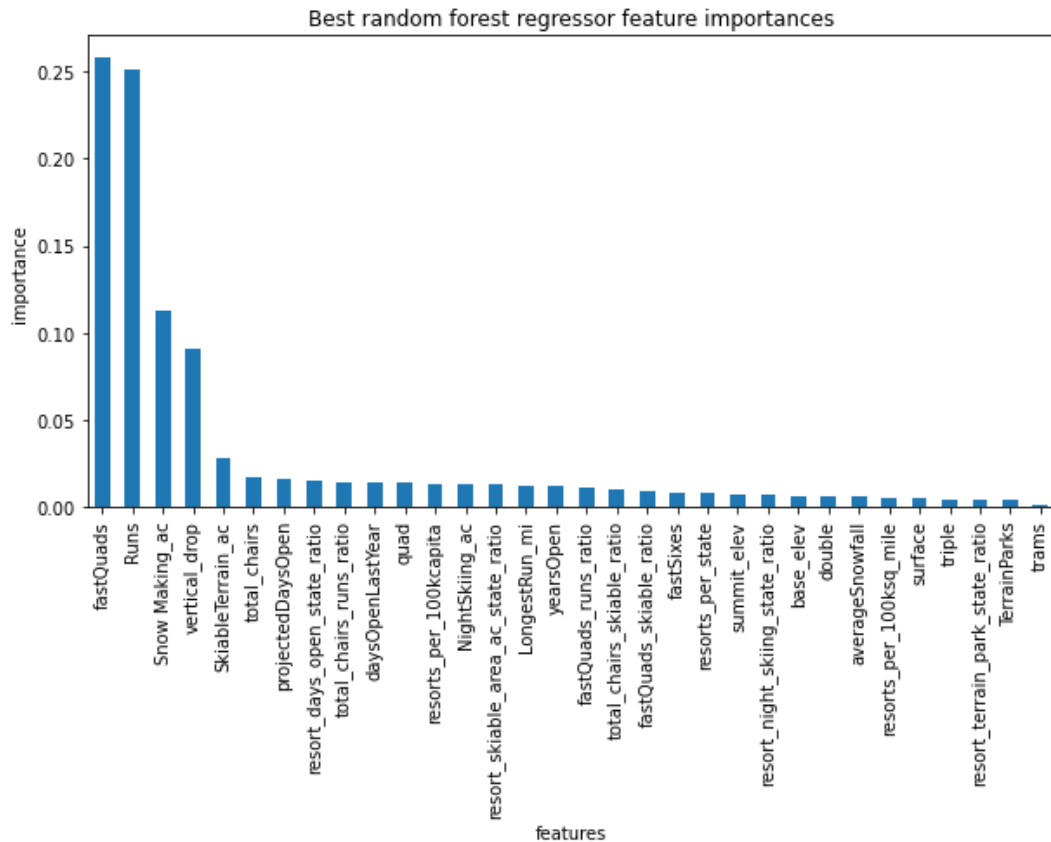
- Big Mountain Resort's business needs a new pricing strategy.
- How can we create a pricing model to determine a competitive price based on data from other ski resorts nationwide?
- How can that price accurately reflect the significance of Big Mountain Resort's facilities?

Key findings and Recommendation



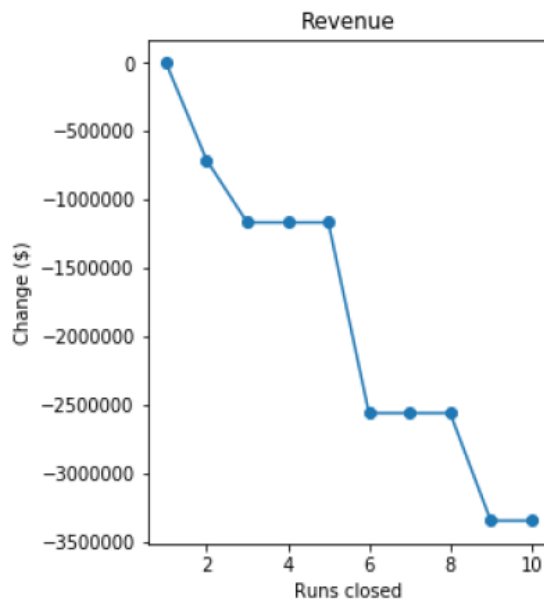
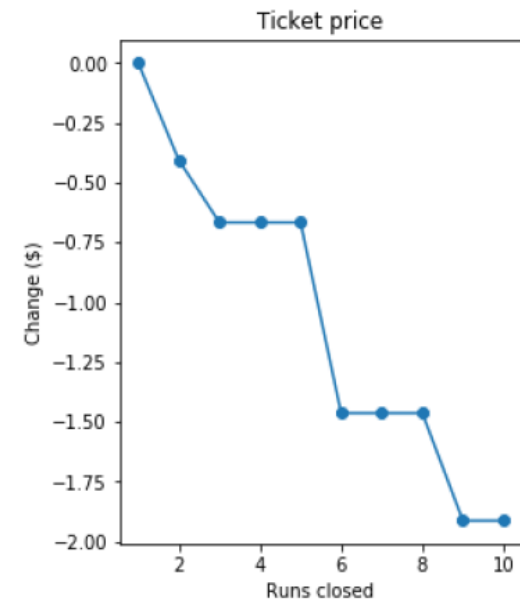
- The most significant correlations were observed with fastQuads, Runs, and Snow Making_ac.
- Visitors value the permanence of snow, which would cost money for snowmaking equipment and drive up prices and costs.

Modeling results and analysis



- The random forest appeared clearly as the best regression option.
- Imputing the median value can estimate the average price of four components previously identified.
- Acceptable variability: The mean absolute error is only about \$1.
- The model was created using the principal components and random forest regression method.

Modeling results and analysis



- The model can be designed to be as accurate as possible. While the current rate at Big Mountain Resort is \$81.00, the modeled rate is \$95.87, suggesting there is room for substantial price increases.
- The model also predicts that keeping up to five runs closed without significantly impacting revenue is possible.

Summary and conclusion

- Finally, BMR can do much better with pricing.
- Seven of eight characteristics favor a ticket price of at least \$10.
- In addition, there are margins for savings, particularly in closing unprofitable runs.
- Big Mountain Resort has the opportunity to enhance its revenues while delivering quality services to its guests. We hope these results will enable resort management to make informed decisions that ensure the sustainability of its operations.