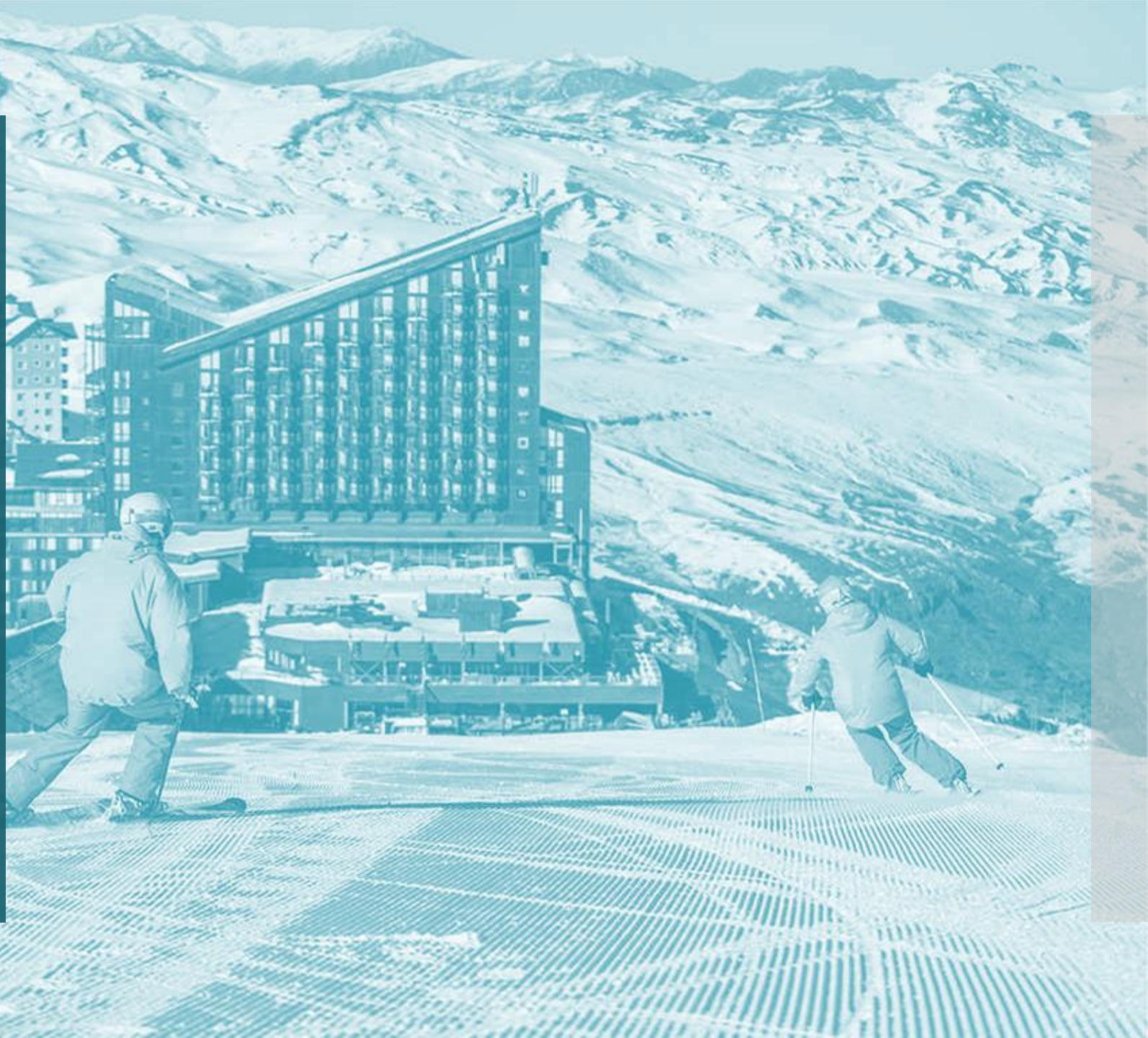


Big Mountain Resort Pricing Strategy

Maximizing Revenue and
Capitalizing on Facility
Investments



The Challenge

- Big Mountain Resort needs to offset an additional operating cost of **\$1,540,000** this season.
- Goal: Develop and implement a new pricing strategy to maximize capitalization on facility investments.
- Current ticket pricing based on market average is not sustainable.



About Big Mountain Resort

- Offers spectacular views of Glacier National Park and Flathead National Forest.
- Access to **105 trails** .
- Annual visitors: **350,000** , skiing/snowboarding for an average of **5 days** per visit.



Current Approach

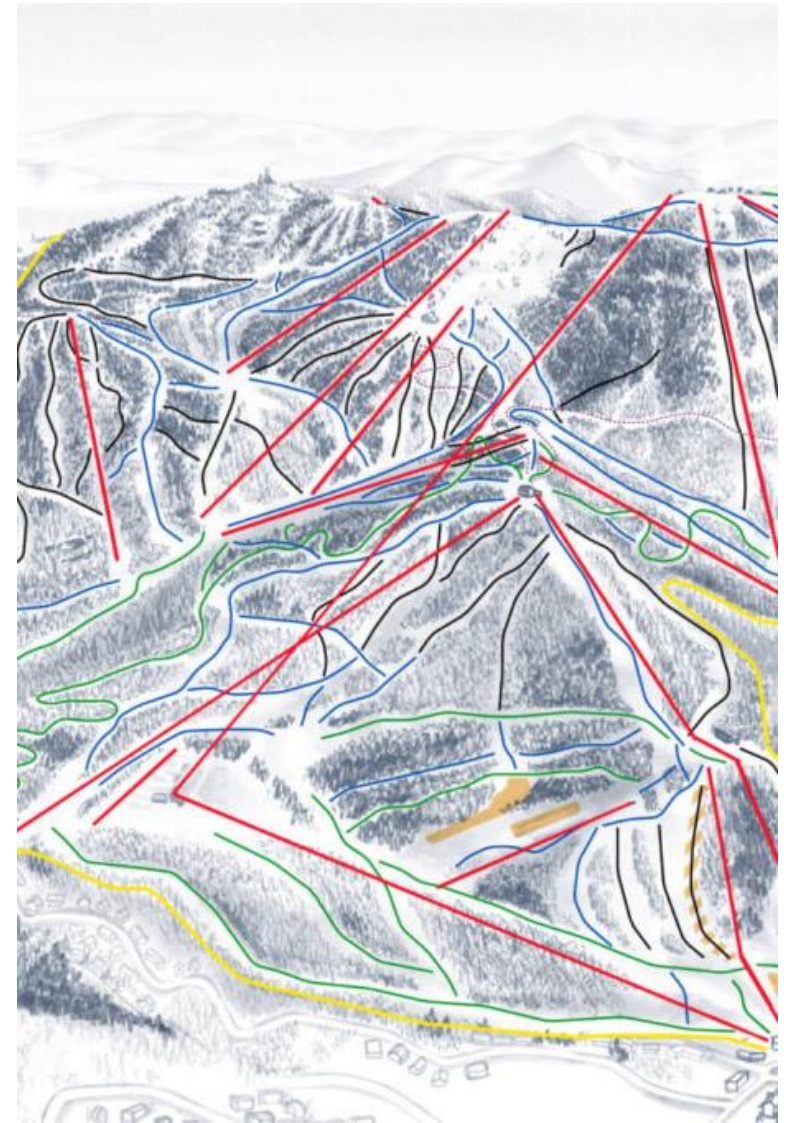
- Pricing based on market average is insufficient to gain a competitive edge.
- Ticket price is not determined by set parameters but must align with perceived value.
- Visitors value facilities like vertical drop, fastQuads, snow-making acres, and total chairs.

Correlations in ski_data

0.04	-0.28	0.12	0.56	0.055	0.47	0.57	0.32	0.39	0.18	0.7	0.43	0.38	0.17
0.11	-0.16	0.39	0.81	0.28	0.72	0.7	0.55	0.52	0.14	0.67	0.71	0.51	0.28
0.02	-0.28	0.032	0.44	-0.0082	0.36	0.48	0.22	0.31	0.18	0.64	0.31	0.31	0.091
0.049	0.1	0.55	0.61	0.33	0.51	0.43	0.57	0.37	0.063	0.24	0.57	0.23	0.11
0.021	0.13	0.37	0.31	0.39	0.23	0.27	0.32	0.24	0.087	0.13	0.45	0.14	0.09
0.047	0.1	0.67	0.72	0.45	0.51	0.56	0.58	0.47	0.052	0.34	0.73	0.37	0.28
-0.12	0.13	0.42	0.28	0.26	0.14	0.14	0.34	0.25	0.056	0.08	0.33	0.26	0.28
-0.093	0.12	0.52	0.26	0.35	0.17	0.18	0.33	0.18	0.072	0.075	0.35	0.14	0.2
1	0.032	0.38	0.21	0.17	0.08	0.099	0.14	0.069	0.14	0.041	0.14	0.091	0.24
0.032	1	0.54	0.064	0.33	-0.072	-0.038	0.0026	0.059	-0.014	-0.27	0.03	0.034	0.06
0.38	0.54	1	0.64	0.63	0.37	0.41	0.58	0.41	0.13	0.13	0.65	0.34	0.43
0.21	0.064	0.64	1	0.44	0.68	0.76	0.65	0.54	0.19	0.55	0.76	0.51	0.41
0.17	0.33	0.63	0.44	1	0.26	0.24	0.44	0.28	0.17	0.045	0.47	0.21	0.25
0.08	-0.072	0.37	0.68	0.26	1	0.52	0.55	0.35	0.16	0.43	0.58	0.36	0.16
0.099	-0.038	0.41	0.76	0.24	0.52	1	0.47	0.39	0.084	0.63	0.53	0.38	0.42
0.14	0.0026	0.58	0.65	0.44	0.55	0.47	1	0.49	0.13	0.29	0.7	0.39	0.57
0.069	0.059	0.41	0.54	0.28	0.35	0.39	0.49	1	0.15	0.44	0.6	0.86	0.25
0.14	-0.014	0.13	0.19	0.17	0.16	0.084	0.13	0.15	1	0.2	0.15	0.15	0.19
0.041	-0.27	0.13	0.55	0.045	0.43	0.63	0.29	0.44	0.2	1	0.44	0.49	0.43
0.14	0.03	0.65	0.76	0.47	0.58	0.53	0.7	0.6	0.15	0.44	1	0.53	0.37
0.091	0.034	0.34	0.51	0.21	0.36	0.38	0.39	0.86	0.15	0.49	0.53	1	0.23
0.24	0.06	0.43	0.41	0.25	0.16	0.42	0.57	0.25	0.19	0.43	0.37	0.23	1
0.13	0.14	0.079	-0.0063	0.17	-0.046	-0.1	0.072	0.12	0.05	-0.045	-0.006	0.073	0.03
0.0085	-0.11	-0.023	0.26	0.022	0.3	0.11	0.18	0.14	0.17	0.19	0.16	0.14	0.03
-0.055	0.13	0.023	0.011	0.064	0.099	-0.2	0.064	0.092	0.066	-0.17	0.14	0.075	-0.09
-0.086	-0.0041	0.15	0.13	0.063	0.12	0.16	0.14	0.057	-0.084	0.024	0.19	0.045	0.22
-0.19	-0.018	-0.037	-0.097	-0.11	-0.061	-0.044	-0.062	-0.0069	-0.18	-0.12	-0.0012	-0.025	-0.001
-0.14	0.017	0.049	-0.027	0.16	-0.03	-0.0036	-0.01	-0.098	-0.1	-0.095	0.052	-0.083	0.07
-0.041	-0.1	0.16	0.3	0.059	0.16	0.24	0.25	0.15	0.0074	0.3	0.32	0.12	0.36
double	surface	total_chairs	Runs	TerrainParks	LongestRun_mi	SkiableTerrain_ac	Snow Making_ac	daysOpenLastYear	yearsOpen	averageSnowfall	AdultWeekend	projectedDaysOpen	NightSkiing_ac

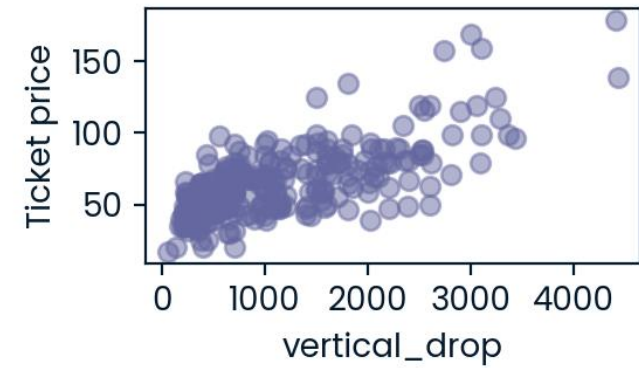
Exploring Opportunities

- **Option 1:** Permanently close up to 10 least-used runs.
- **Option 2:** Increase vertical drop by 150 feet (requires additional chairlift).
- **Option 3:** Same as Option 2 + add 2 acres of snow-making coverage.
- **Option 4:** Extend the longest run by 0.2 miles (requires 4 acres of snow-making coverage).



Key Factors Influencing Ticket Price

- Strong positive correlation with:
 - Vertical drop
 - Number of fastQuads (high-speed quad lifts)
 - Snow-making acres
 - Total number of runs and chairs
- Visitors prioritize guaranteed snow cover over skiable terrain area.



Final Model Choice

Tested both Linear Model and Random Forest Model :

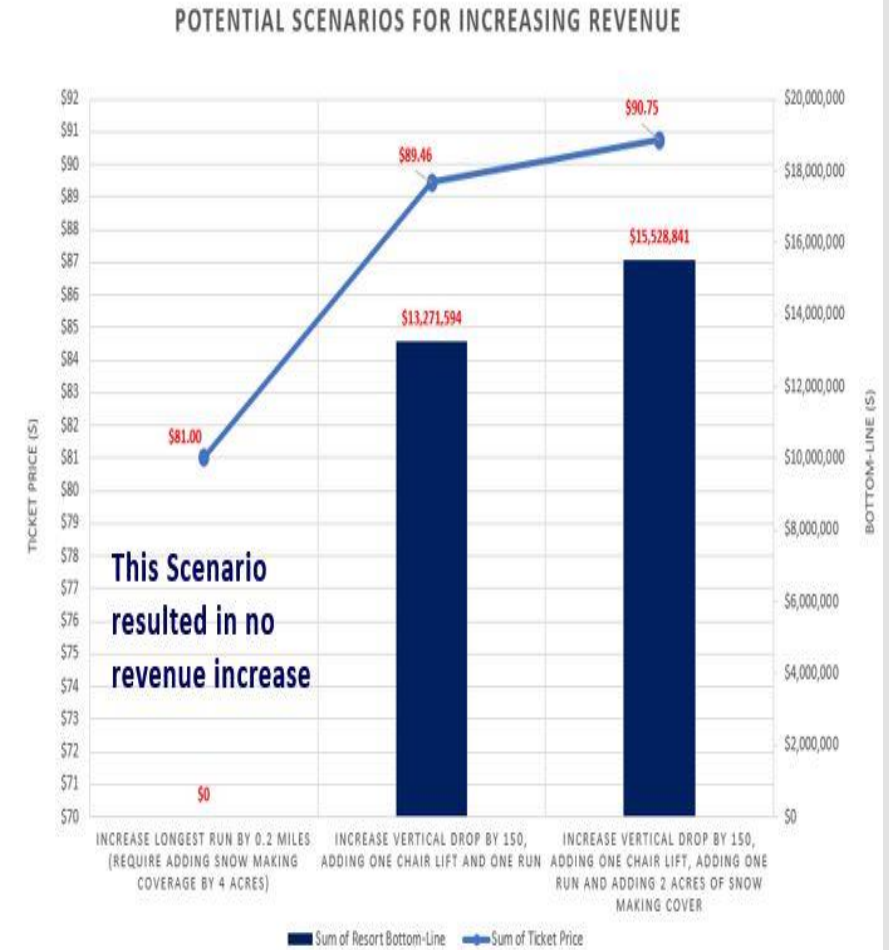
- Linear Model: Predicted ticket prices were off by ~\$9; prone to overfitting.
- Random Forest Model: Lower cross-validation mean absolute error; better performance.

Top 4 features identified:

- FastQuads
- Runs
- Snow Making_ac
- Vertical Drop

Best Scenarios for Revenue Growth

- **Scenario 1:** Increase vertical drop by 150 ft → 10.44% ticket price increase (\$81 → \$89.46), revenue increase by **\$14,811,594**.
- **Scenario 2:** Add 2 acres of snow-making → 12% ticket price increase (\$81 → \$90.75), revenue increase by **\$17,068,841**.
- Closing unused runs results in minimal/no impact on ticket price/revenue unless multiple runs are closed.



Optimal Solution

- Best scenario: Increase vertical drop by 150 ft, add one chairlift, add one run, and add 2 acres of snow-making coverage.
- Result: 12% ticket price increase (\$81 → \$90.75), bottom-line increase by **\$15,528,841** (after deducting \$1.54M in operating costs).
- Limitations: Lack of data on operating costs per used run and weekday ticket prices prevents further recommendations.





Questions & Answers
