Summary of Modeling

1. Big Mountain Resort is undercharging

With all resort data but Big Mountain's, the estimated mean prediction error is found to be $10.41 with a marginal error of $1.46. Our model predicts $96.32 as Big Mountain's fair market price, about $15 more than our actual price of $81.00. Even with the expected error of $10.41, this suggests there is room for an increase. If we assume 350,000 expected visitors over the season and 5 tickets per visitor, then a conservative $5 increase per ticket would mean about $8,750,000 increase in revenue.

Table 1. Big Mountain Resort's Standing in The League

Features	standing	Potential change & Expectation
runs	Compares well for the number of runs. There are some resorts with more, but not many	Closure of a few least used onesàcut down cost
vertical drop	Do well for vertical drop, but there are still quite a few resorts with a greater drop	adding vertical dropà price increaseàrevenue increase
snow making area	very high up in the league table.	adding the snow making areaà make no much difference
Length of the longest run	Own one of the longest runs. Longer ones are rare.	Increasing the longestà make no difference
Trams	The vast majority of resorts, such as Big Mountain, have no trams.	
Skiable terrain area	Amongst the resorts with the largest amount of skiable terrain	Adding skiable terrain à make no difference
Total # of chairlifts	Amongst the highest number of total chairs,	Only make changes when required by changes in other features
Fast quads	Most resorts have no fast quads. Big Mountain has 3, which puts it high up that league table.	

2. Explore Business Scenarios

Should we add more runs? Expand existing skiable area? or add more chairlifts? Knowing our standing in the league tables of some most important features helps us answer these questions. Table 1 below summarizes our resort standings in the league, together with potential feature modifications to make and expected change or no change. Table 2 summarizes business scenarios that we experimented and our findings.

Table 2. Tested Scenario and Findings

Scenario Tested	Findings
· closing down up to 10 of the least used runs	· closing one run makes no difference · Closing 2 and 3 successively reduces support for ticket price and so revenue. · There is a plateau from closure of 3 runs till closure of 5 runs. · Ticket price drops rapidly when increasing the closure to 6 or more.
· Increase the vertical drop by adding a run to a point 150 feet lower down · install an additional chair lift to bring skiers back up.	· support a ticket price increase by $9.13. · increase revenue by $15,978,514
· The above, and · adding 2 acres of area covered with snow making equipment	· No difference from Scenario 2
· Increase the longest run by 0.2 mile · add an additional snow making coverage of 4 acres	· the ticket price stay unchanged.

3. What's Next

In Table 3, we present our recommendations for executives to consider. Of course, the feasibility of some will need additional information, as stated in Table 3, to further investigate.

Table 3. What is Next

suggestion	consideration
increasing both types of ticket price immediately	
Closure of 5 least used runs	Cut on cost would need to offset the loss in revenue. Need information such as · Operation costs of the 5 least used runs; · Projected number of visitors over the season; · added-on operational cost on the remaining runs and chairlifts.
Increase vertical drop & Install additional chairlifts	Increase in revenue (by ticket price) would need to offset the additional cost. Need information such as · Cost of adding vertical drop and installing new chairlifts · Projected number of visitors over the season; · Potential saving of operational cost on the other unchanged runs if visitors are more drawn to the new deeper run.