Recommendations for Big Mountain Resort

The objective of this project was to explore avenues to implement a new pricing strategy as the resort saw an increase in operational costs tied to the installation of a new chairlift. With a cost of $1.54M, the chairlift put pressure on the resort to either realign its cost structure or increase its revenue streams to offset a greater costs going forward. With that said, being mindful of market conditions and understanding the pricing strategies of other United States based resorts was pivotal in accomplishing the objective. The resort also faced a timeline of implementing a new pricing strategy that would be ready to go in time for next ski season.

With the objective in mind, management shortlisted four options to explore that could reduce costs and/or increase revenue. These options came down to 1) permanently closing up to 10 of the least used runs; 2) increase the vertical drop by 150 feet by adding a run to a lower point on the mountain. Doing so requires the installation of an additional chairlift but does not require additional snow making; 3) the same as option two but it requires adding two acres of snow making; 4) increase the longest run by 0.2 miles to boast a 3.5 mile run but it requires adding four acres of snow making.

To test these options to derive their respective impacts on Big Mountain’s ticket price, I built and trained a robust model that mindfully accounted for market conditions. The model extracted attractive market conditions for customers such as vertical drop, snow making, and fast quads so these amongst other conditions were top of mind. Evaluation of the four options listed above yielded interesting results. For option 1, my model determined that closing one undesirable run has no impact on ticket price and revenue. Closing two runs decreased ticket prices by approximately $0.40 while closing three, four, or five runs has the same impact of decreasing ticket price by approximately $0.65 and closing six or more runs leads to a more significant drop in ticket price and revenue. I would advise that at least one run is closed immediately to reduce operational and maintenance related costs tied to it as it would not undermine current revenue projections. Additional runs could be closed such as up to five runs but the revenue impact would have to be understood in relation to the savings in operational and maintenance costs. The tradeoff could be worthwhile and if it is, I recommend closing two or five runs. I imagine if you see value in closing more than one run, ultimately, you would want to close five runs as it maximizes cost savings relative to its impact on revenue. I do not recommend closing six or more runs.

Unlike option 1, option 2 has a positive impact on ticket prices and revenue. My model showed that it would support a ticket price increase of $1.99/ticket which would increase revenue by $3,474,638. Though, this option is tied to the basis that each visitor buys a five-day ticket, on average. I would recommend this option as long as total costs associated with it fall under approximately $3.47M. If the costs surpass the additional revenue sum, this option is not beneficial to the resort.

Option 3 produces identical revenue results as option 2 but at a greater cost as it requires the additional of two acres of snow making. This would hurt your bottom line as it would increase operational costs. Big Mountain is already amongst the market leaders in snow making, so there is not a lot of upside with this option. As a result, I do not recommend pursuing this option.

Option 4 yielded no impact on ticket price. It was the only option to produce such an outcome. This option would only increase total costs, so I do not recommend it. Big Mountain resort already boasts one of the countries’ longer runs.

Going forward, I would recommend that Big Mountain Resort pursues options 1 and 2 as they potentially offer the greatest net benefits to the pricing strategy and overall profitability of the resort. These recommendations depend upon unknown factors such as operational and maintenance related costs as well as navigating deficiencies in the United States resort dataset as some resorts did not provide ticket price information and it is fair to operate under the assumption that some resorts are undercharging their ticket prices while other resorts are overcharging their ticket prices. With that said, Big Mountain Resort currently charges $81 for an adult weekend ticket but my model produced support for the ticket price of $95.87. Though, my model also produced an expected mean absolute error of $10.39. Accounting for it yields a ticket price of $85.48 at the low end, so there is room to increase ticket price regardless. As is, I recommend the resort increases its ticket price closer to the high end of $95.87 given the current unique facilities and features the resort offers. This new ticket price would further be supported if the resort elects to move forward with my recommendations of options 1 and 2.