Guided Capstone – Big Mountain Resort

I. Executive Summary

This report provides a summary to the project to examine Big Mountain Resort's pricing strategy, with an objective to improve overall profitability of the resort.

II. Project Objective

The project aims to provide guidance for Big Mountain Resort's 2021 ticket price strategy. Identify potential cost cutting options to at minimum off set the incremental $1.54 million in operating cost without undermining ticket price, and provide evidence to support a raise in ticket price

III. Methodology

A predictive model is built, using 330 resorts across US which deems to be in the same market segment as Big Mountain Resort and features which impacts ticket price. Insights were generated based on the model, with recommendations for follow-up to be provided.

IV. Analysis, Modelling & Findings

Baseline – the Big Mountain Resort is charging a ticket price of $81.

Model suggestion – a ticket price charging potential at $95.19, based on the resort's existing facilities.

The predictive model built includes a mean absolute error of $10.34. Despite so, there is still room to support an increase in ticket price. Further analysis is required given within Montana, Big Mountain Resort is among the top end of the ticket price range.

The model also looked at other top features/ facilities, which came up as important to ticket price in the model – vertical drop, snow making acres, total chairs and fast quads and Big Mountain Resort is ranking favorably amongst competitors in the market.

A few other scenarios has been modelled as part of the exercise, to understand future improvement opportunities. Results as follow:

1) Permanently closing down up to 10 least used runs:
    - Results suggesting closing just one run would likely yield cost saving without impacting ticket price.

2) Increasing the vertical drop by adding a run to a point 150 feet lower
    - Results suggesting a potential to raise ticket price by $1.99 and generate an additional $3.4 million revenue. This option will require CAPEX which needs to be further studied.

3) Increase both the vertical drop and adding 2 acres of snow making cover

- Resulting in a similar conclusion as option 2 on a potential to rise ticket price by $1.99 and generating $3.4 million more. This also illustrates that adding 2 acres of snow making cover hardly make any difference to ticket price and revenue, but will likely result in more CAPEX requirements.

4) Increasing the longest run to 3.5 miles
    - Resulting zero incremental revenue opportunity after CAPEX spent, hence making this a negative return option.

V. Model Limitations

There are a few factors, which can potentially impact the model's predictive accuracy:

1) The model is dependent on accurately profiling the 330 resorts deems to be in Big Mountain's same market segment

2) In processing the data, ~25% of records with insufficient data has been dropped, along with missing values filled using the averages from the dataset. The model assumes the missing records do not have significant influence to the prediction results.

3) Ticket price has been the sole factor used to examine the model. No further work has been done to drill into Big Mountain Resort's e.g. customer profile, price sensitivity, customer's location etc., assuming these factors do not significantly influence the results.

VI. Recommendations

To immediately improve the overall financial picture, it is recommended that:

- A $4.4 adjustment up can be considered on ticket price, based on a visitor projection of 350k per annum. This adjustment will off-set the $1.54 million incremental operating cost.
- Consider closing 1 run to save operating cost. Actual savings should be examined though to ensure the cost saving would make a good business case.

As a longer term recommendation:

- Evaluate the CAPEX requirement to increase vertical drop by adding a run to a point 150 feet lower. Use the CAPEX cost and the potential raise in ticket price to estimate the payback period of the investment, then decide if the investment will be sensible.

Follow-up Actions

Before further putting the model into action, it will be beneficial to have the relevant departments to look into a few areas prior to making a final suggestion to the executive group:

1) CAPEX data relevant to the recommendations put forward for future improvement to determine the final return on investment (ROI)
2) Examining Big Mountain Resort's customer profile data (eg. age, customer's location, their average spend on ski resorts), to understand how price sensitive the customers may be
3) Examine other ticketing/ pricing strategy in the market – are there other pricing/ ticketing strategy we should have looked into or our competitors are using (e.g. one-off entry tickets vs seasonal passes)