01/13/2024

Guided capstone project report

# summary and recomendations

## The objective of the data analysis was to evaluate the ski resort market share and develop a model that predicts the ticket price based on the resort's features. This model could be applied to various business scenarios for Big Mountain Resort. The process of predicting the ticket price yielded valuable insights for the resort business analysis, as evidenced in Figure 1.

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Figure 1. Top-10 features that strongly correlates with ticket prices

## Consequently, our recommendation is to invest in the top 5 features that market data indicates support a higher ticket price. Furthermore, the market data analysis results can be divided into three different stages or timelines, which Big Mountain Resort can begin implementing immediately to achieve significant economic benefits for the business.

## Stage 1 – Ticket price increase (near future action):

In the first stage, we suggest a ticket price increase, where ski resorts that excel in the top 10 features have an average ticket price significantly higher than that of other ski resorts. Our analysis indicated that Big Mountain Resort is particularly strong in the top 5 features, including Runs, fast quads, snowmaking area, vertical drop, and skiable terrain area.

A graph of a vertical drop

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Figure 2 Big Mountain Resort (broken red line) position in comparison with market share.

Consequently, our model predicted that Big Mountain Resort can support a ticket increase to $95.88 with a mean absolute error of $10.36

## Stage 2 – Reducing cost by closing 1 run (mid-future action):

In the second stage, we recommend reducing costs by closing one run. We compared the scenario of closing up to 10 of the least used runs to the potential loss in revenue (reduced support for ticket price). Our model shows that Big Mountain Resort can effectively close one run without any adverse effects on the ticket price

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Figure 3 Graphs showing how ticket price support and revenue loss decreases by the amount of run closed.

## Stage 3 – Adding extra features as part of an investment plan:

## Big Mountain Resort investment plan includes:

## Adding a run, Increased the highest vertical drop by 150 ft more, and installing an additional chair,

## Increasing the acres of snow making by 2 acres. And,

## Increasing the longest run by 0.2 miles.

Our model shows an increase support of an additional $1.61 to the ticket price if point #1 is implemented, with a prediction of expected revenue of $2.8MM over one season (assuming 350K total visitors, each buying 5 tickets).

Unfortunately, our model does not show a ticket price increase support if point #2 or #3 are implemented.

## In conclusion, our analysis recommends investing in the top 5 features that support a higher ticket price, implementing a ticket price increase, closing one run to reduce costs, and adding extra features as part of an investment plan. We encourage Big Mountain Resort to act upon these recommendations to improve its market share and economic benefits.