Big Mountain Resort

By,

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Guided Capstone Project Report

INTRODUCTION

Comparing the data provided in the data set ‘ski_resort_data.csv’ (records of 330 Big Mountain Resort’s) with its closest competitors it’s clear that the current day pass ticket price is less. Using Random Forest regression we built a model to predict the ticket price keeping the recent increase in operating costs of $1.54M. Also, we are aiming to increase the profitability with this model establishment.

Our model suggests increasing the current price from from $81 to $94.22 (+/- $10.39) will align the competeras pricing and it will not affect the ongoing business. By implementing this model we are expecting an increase in revenue between $4.952M ($2.83/day/ticket) and $41.317M

($23.61/day/ticket) and this calculated for incoming traffic 350,000 customers purchased 5 day passes.

Features

On analysing the data in ‘ski_resort_data.csv’ we understood the key features which are important and can impact the ticket prices are Fast Quads, Runs, Snow-Making and Vertical Drop. We considered these features as our basic reliable data points for capital investment and recommendations for next steps.

Recommendations

We differentiated the Recommendations into two types ‘Immediate’ and ‘Short Term’

Immediate Recommendations:

1. Increase the price of the ticket to a minimum amount recommended by the model which is $83.83 per day ticket. So the slight increase of $3.83 should drive the revenue to 2.3% high and this can be validated using the recent sales data

2. Our plan is to bring up the ticket price all the way up to $104.61 from observing the positive results from step by step price increasing

3. One of the main agendas of our model is to decrease some operating costs, the model suggests to close the runs which are less popular or least traveled. Per the results yield by the model it’s expected closing one run shouldn't affect the revenue however, closing multiple runs will lead to a non profit. Consider operating these runs only when observed an increase in demand. In the meantime, the operating costs saved during off days can be added to the resort’s savings.

Short Term Recommendations:

1. As mentioned earlier the key features that can support the ticket pricing greatly are Snow Making, Runs and Vertical drops. By considering the suggestions yield from the model adding a run, increasing the vertical drop by 150 feet, and installing an additional chair lift

increases the ticket price by $1.99 and this can increase the revenue by about $3.48M per season. These add ons accommodate and offset the $1.54M increase in resort's operational cost and bring in profit of $1.94M above that amount.

2. One of the suggestions is increasing the snow making space and these may not make any difference in the pricing from the last recommendations and increase in ticket price by $1.99 and annual revenue increase to $3.48M. This change can attract more visitors and eventually helps in increasing the overall revenue.