Black Mountain Resort

ticket price evaluation

Outline

- Problem Statement Worksheet (hypothesis formation)
- Recommendation and Key Findings
- Modeling Results and Analysis
- Summary and Conclusion

Problem Statement Worksheet

1. Context: Big Mountain Resort is a premium skiing resort that offers services beyond their competitors. Big Mountain is considering increasing services by adding a chair lift but is not certain that their current facilities are being used as much they could. And it seems that customer input would help them understand which facilities are important to their client base.	2. Criteria for success: creased revenue from ticket sales in the following business cycle would be one way to assess the success of a change in ticket prices. However, for this project at this stage we will focus on the measurements of customer data and suggest changes based on this data.
3. Scope of solution space: Focus will be on customer input and usage data: specifically, how much are lifts utilized and how long is the wait to get onto the mountain, does this justify the cost of another lift? Do other facilities get used more frequently? Do customers prefer other facilities (spas, etc) to skiing?	4. Constraints within solution space: Constraints for adding additional lifts are cost and space. Likewise, there might be similar constraints for the other facilities on the resort, additional property might be a good investment.
5. Stakeholders: Director of Operations, Jimmy Blackburn, and Alesha Eisen, the Database Manager.	6. Data sources: A single CSV file.

Recommendation and Key Findings

Black Mountain Resort currently has a ticket price of $81. Based on the features at BMR, I found the predicted ticket price to be approximately $95. This *could* suggest that Black Mountain has some room to adjust prices based on their facilities in comparison with other similar resorts.

I would recommend:
- adding to the vertical drop &
- adding another chair lift.

In case the business is considering any run closures, I would recommend starting with only one closure and soliciting customer feedback about whether additional closures would affect their decision to purchase tickets or return in following years.

Modelling Results and Analysis

- Prices at BMR are approximately ten dollars lower than what we would predict based on the amenities it offers clients.

- Unfortunately, we do not have data on whether customers are strictly from in state or whether BMR is a destination resort. The prices within Montana are lower on average than other states and customers within the state might not be willing to spend more for a luxury experience.

Modelling Results and Analysis

I ran four different scenarios as to how BMR could decrease costs or increase revenue.

1. It could close down up to ten of the runs.

    In the first scenario, it appears that closing up to ten runs would decrease revenue by just over two dollars given ticket prices and possibly decrease revenue by as much as four dollars given that people stay for five days on average. However, removing only one run makes no real difference for prices.

Modelling Results and Analysis

2. It could increase the vertical drop value by adding a run, but it would require an additional chair lift, and would not have additional snow making coverage at this point. (An additional lift would cost approximately one and a half million dollars.)

3. As above, but with additional snow making coverage.

In these scenarios ticket prices could be increased by approximately $1 with an increase in revenue of approximately $2 million. After increasing the vertical drop and installing an additional chair, I modelled what would happen if the snow making cover was increased by an additional two acres, this also allowed for a ticket price increase of about $1 with an increase to revenue of $2 million.

Modeling Results and Analysis

4. BMR could increase the longest run by a fifth of a mile to a total of 3.5 miles, but it would require an additional four acres of snow making coverage.

In the last scenario I modelled a change from increasing the longest run by a fifth of a mile to a total of 3.5 miles, which made no difference to predicted price values.

*I assumed that the expected number of visitors is 350,000 based on last year and that on average skiers stay for five days.

Summary and conclusion

I would recommend:
- adding the vertical drop
- adding another chair lift
- soliciting customer feedback

I recommend gathering data on whether customers are from in- or out- of state. It would allow us to know whether in-state or market share comparisons are more appropriate when modelling ticket price data. It is also important to gather data on how many customers return after previous years based on their experiences in the past year; this will allow us to know whether things like closures are likely to affect the customer base for upcoming years.