Problem Statement Worksheet (Hypothesis Formation)

How can Big Mountain Resort establish a new data-driven business strategy by August 7th, 2022, lowering operating costs, making better use of facilities, or implementing a new ticket pricing model, to increase projected net income for the upcoming season by $1.6 million?

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1 Context

Big Mountain Resort is a ski resort in Montana. Their existing price strategy is to charge a premium above the average price of resorts in its market segment. Management suspects this pricing strategy isn't optimal, thinks they can make better use of existing assets, and believes they stand to benefit from the implementation of a new data-driven business strategy. To this end, Big Mountain seeks guidance from a new data science team.

Recently, Big Mountain Resort installed an additional chair lift, increasing operating costs by $1,540,000 this season. In attempt to offset this increase, the company is considering changes to ticket pricing, changes that lower operating costs, and changes that involve "capitalizing on its facilities" in an increased capacity.

2 Criteria for success

A new strategy must be approved and implemented by August 7th, 2022.
This strategy must increase projected net income for this season by $1.6 million.

3 Scope of solution space

The solution space for this problem is bound by Big Mountain's expressed intents and an increase in seasonal operating cost provided with very little context. As communicated to the data science team, the implementation of a data-driven business strategy is limited to one or more of the following adjustments:

- changes that would reduce operating costs
- changes that would better capitalize on existing facilities.
- changes to ticket prices
- changes that guide future investments

4 Constraints within solution space

Big Mountain receives around 350 thousand visitors annually. Ticket prices cannot be reduced below a specific minimum at which this customer base provides sufficient revenue, in conjunction with other revenue streams, to cover all costs. This specific minimum cannot be explicitly stated without additional information.

This year's season opens on December 7th. All changes should be finalized by August 7th, 2022.This should allow adequate time for marketing to update materials to reflect these changes, and for these marketing materials to reach their target audiences.

5 Stakeholders to provide key insight

Big Mountain Resort
Jimmy Blackburn - Director of Operations
Alesha Eisen - Database manager

Data Science Team
Nicholas Brower - Consultant

6 Key data sources

A dataset of resorts considered part of the same market share has been provided to the data science team. It includes information on Big Mountain Resort and 329 other resorts.
This information describes physical assets and resort properties, such as summit elevation, location, number of runs, vertical drop, skiable area, area covered by snowmaking equipment, and the number of various types of lifts, among other details. It also specifies important business details, including the number of days open and ticket prices. The data science team will require customer information, BMR's financial records, and additional market research to best guide Big Mountain's future business strategy.