What is the business problem you are investigating and what hypothesis can be made to support the business outcome?

CONTEXT

Big Mountain Ski Resort has recently installed additional chair lifts to increase the number of visitors across the mountain. The operational cost to equip additional chairs increases by $1,540,000 this season. The investors would like to keep the profit margin to be 9.2 %. In order, to meet the expectations of the investors, the business is asking recommendations to on recouping the operational costs from the new chair.

From the business problem, to support the business outcome few hypothesis can be drawn out. To increase the revenue, 1. the more number of skiers should be attracted to use the new additional chair installed, 2. the cost per ticket should be reasonable to afford, and 3.the turnaround time of chairs should be efficient and highly frequent so that people will not be waiting to hop on the next chair leading reduced delays.

CRITERIA OF SUCCESS

To meet up the profit margins to 9.2 percent, the number of visitors should significantly increase when after installing additional chairs and by the end of half of the next season, the revenue generated should be at least 50 percent of the operational costs spent on additional chairs.

SCOPE OF THE SOLUTON SPACE

The tasks to complete includes pre-processing, transforming, and selecting important features which are influential to increase the revenue. Later, implement machine learning algorithms to learn and find patterns from the features. Finally, produce actionable insights to implement to achieve the profit margins.

CONSTRAINTS WITHIN SOLUTION SPACE

The data might not contain proper information on the frequency of people visiting the resort on average in a week or month. In addition, the time it takes for each type of chair to come back to pick up the next set of visitors to reach them to the top of the mountain.

STAKEHOLDERS

The management of the Big Mountain Ski resort, and investors

DATA SOURCES

Loaded CSV file