Problem Identification:

Big Mountain Resort in Montana has 105 trails and an annual visitor attendance of about 350,000 who come to ski or snowboard.

An additional chairlift was installed at the resort recently which increased their operational costs by $1.54M.

What investment strategy can Big Mountain Resort use to increase its ticket price beyond the 7.3% premium to the average price set by resorts in its market segment to recoup at least the additional operational cost of a new $1.54M chairlift over the next year.

Further, provide insight on what cost cutting measures Big Mountain Resort can take without changing the perceived value of the ticket.

Recommendation:

Our Random Forest regression model suggests that we can increase the ticket price by $1.99 with an additional investment of a ski run that extends 150 feet further down and a new chairlift.

The expected annual revenue increase is $3.75m, given 350,000 guests per year and 5 days of skiing per visit.

Key findings:

The model suggests that skiable acreage utilizing man-made snow is very undervalued by guests and removing or adding a small amount would not affect the value of the ticket price.

The model also suggests that closing one chairlift would also not affect the value of the ticket price, but two or more drastically does.

Adult weekend ticket price ($) distribution for resorts in market share
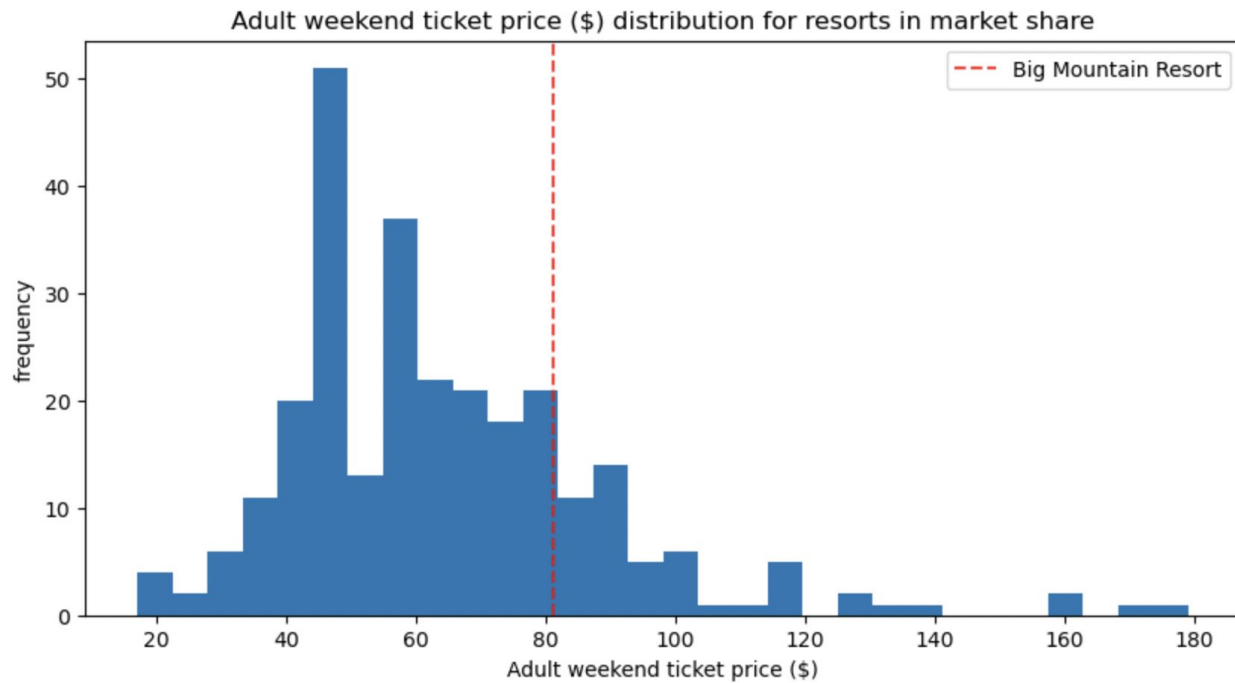
Big Mountain Resort's ticket price is reasonably priced for its feature, with many resorts in the market share valuing their ticket price a considerable amount more.

Modeling results and analysis:

Area covered by snow makers (acres) distribution for resorts in market share
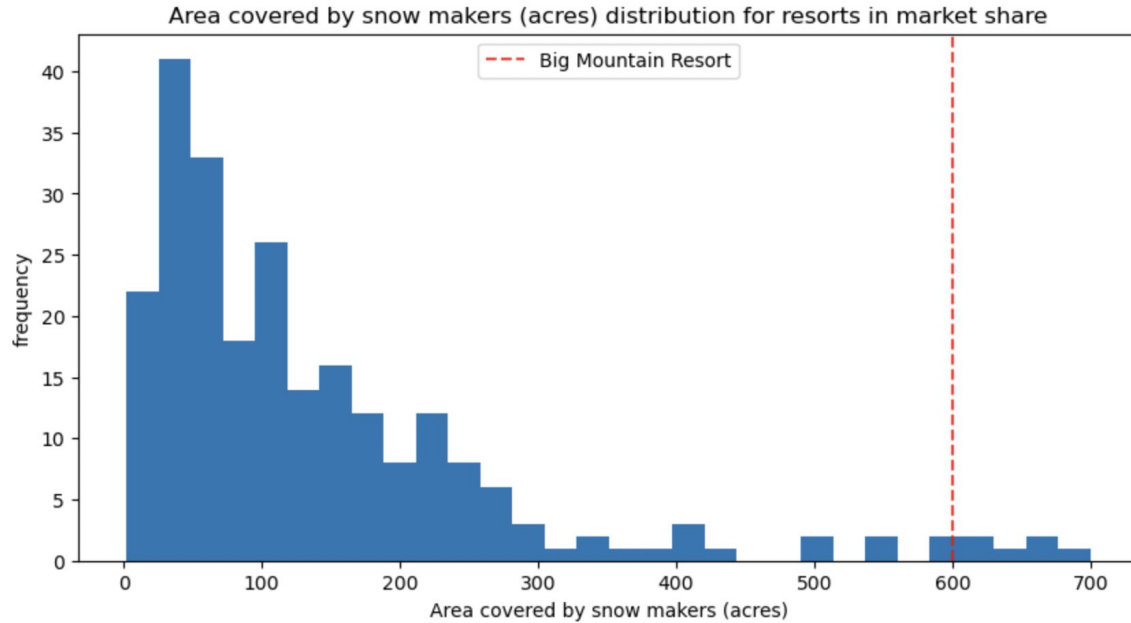
Big Mountain Resort supports more man-made snow acreage than majority of resorts in the market segment. Small changes in area covered will not change it's overall ranking. The model suggests this is a feature to investigate for further cost savings.

Modeling results and analysis:
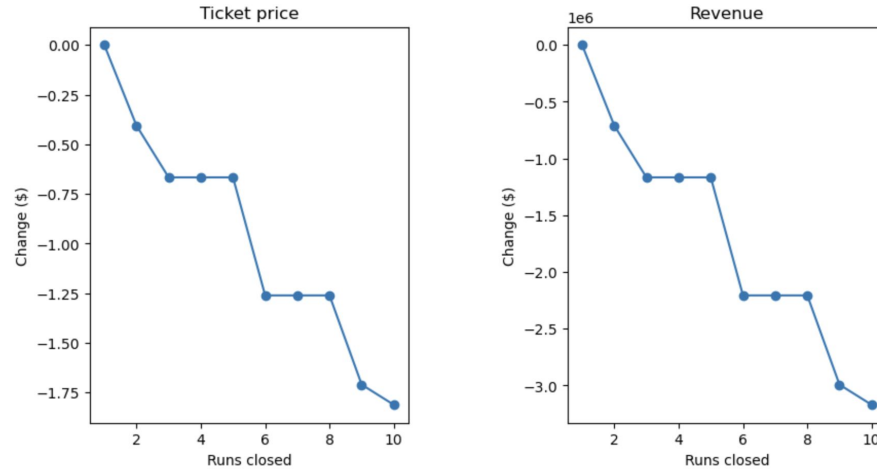
The model says closing one run has no effect on ticket price. Closing 2 or more lowers the value of the ticket price and consequently the revenue as well.

Modeling results and analysis:

Vertical drop (feet) distribution for resorts in market share
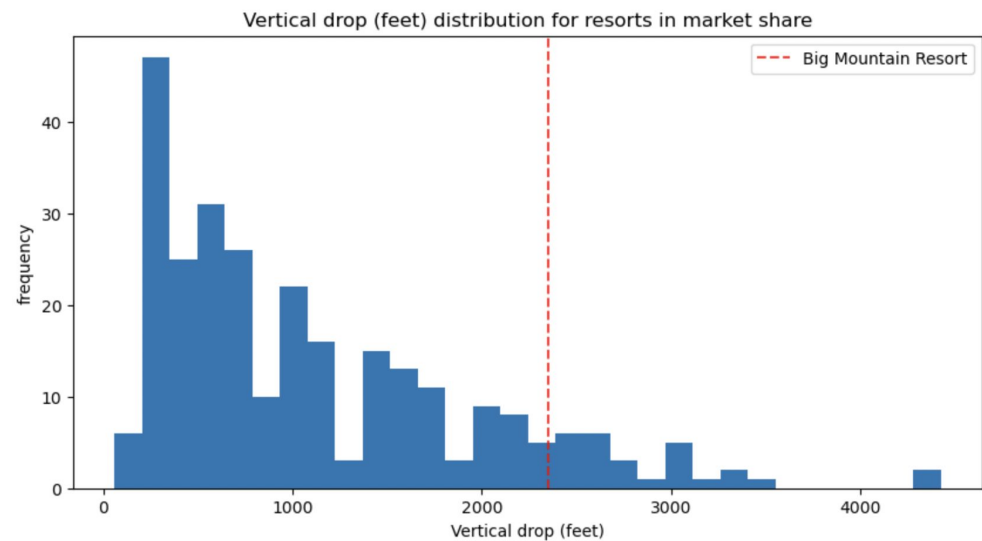
Big Mountain Resorts has a strong measure for vertical drop, but there are a good number of resorts with a greater drop.

Summary and conclusion:

The model suggests a new ticket price of $83, and maybe a higher price when paired with new business investments.

Big Mountain resort contains amenities and features that put it in the high-end part of the market segment, and it has a competitively valued ticket price.

Upgrading the facilities at Big Mountain Resort to return a higher price while attracting more visitors would offer a higher value within its market segment.

The amount of man-made snow acreage could be considered for further cost savings.

To improve the model, operating cost for each of the resort's features should be considered.

To address these operational changes, the executives could invite business experts to try the model out and provide feedback.

To make this model available for business analysts, it could be packaged into a dashboard accessible within the resort's network.