

The Problem

We set out on an expedition to answer the question that lies at the heart of every business' success: how do we increase profits? Simply put, Big Mountain Resort needs to increase revenue and decrease costs, especially considering the recently installed chair lift and its associated \$1.54 million in operating costs. Given that tickets are our primary source of income, establishing a new pricing model is the primary goal of this expedition. We need to increase revenue by at least 1.1% by the end of next season to cover the new lift costs. Additionally, it would be helpful to get a sense of the importance of the facilities before the beginning of next season to find possible cost-cutting measures without devaluing ticket prices. We have a proposed price that could support an estimated increase in revenue by 6.6-24.3%. Along the way, we uncover a potential cost-reduction scheme that could be enriched with additional data.

Suggestions

Our current predicted revenue is \$141.75 million. After cleaning up our national data for ski resorts, we trained a model that predicts adult weekend ticket prices with an accuracy of +/- \$10.39 (pretty accurate!). Since Montana's resorts' weekend and weekday prices do not differ, this model proves useful for our resort. The model predicts that Big Mountain Resort's ticket price could be \$95.87 (the current price is \$81.00).

Our model also serves to provide a sense of how facilities such as these can support a given increase in ticket price, especially vertical drop, which has the most positive relationship with ticket price (fig. 1). Given that, we should increase our vertical drop by adding a new run with a landing point 150 feet lower down. However, this requires the installation of a new chairlift to bring skiers back up. This new run supports a ticket price increase of \$1.99. The cost/ticket to cover the required additional chair lift is \$0.88. Thus, this scenario increases revenue by 6.6-24.3%. This price raise covers the minimum revenue increase to accommodate the cost of the recently installed lift (\$1.54 million).

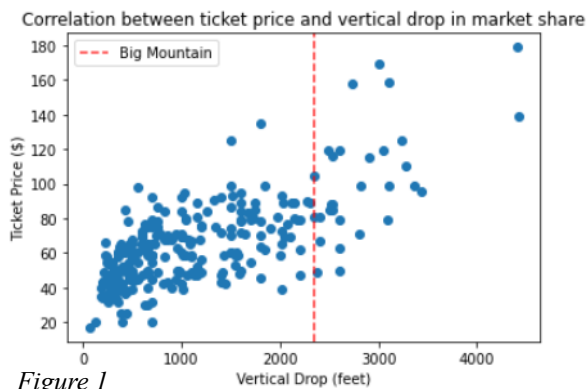


Figure 1

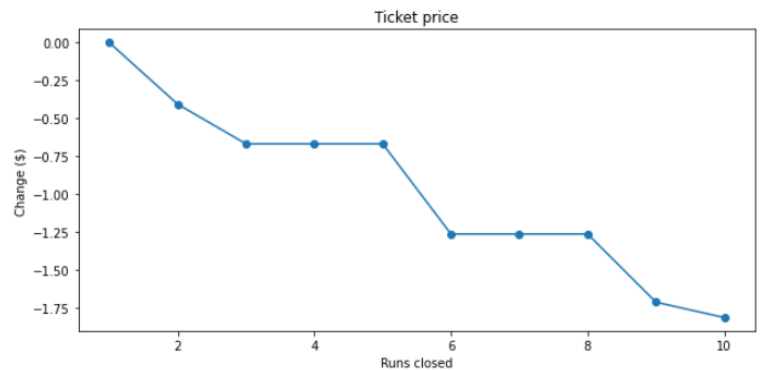


Figure 2

We should also close down at least one run to reduce costs (potentially more) seeing as it does not affect ticket price and revenue (fig. 2) We could potentially close down more, but presently we would not be able to recommend that without additional information about operating costs for runs to see if it's worth devaluing ticket price for the reduced costs.

Future Considerations

Big Mountain's current ticket price is \$81.00. Our model predicts a price of \$95.87 with a reasonable range for ticket price being \$85.48-\$102.26. However, there is still a considerable difference between our current price and the model-predicted price. Our potential price cap is likely limited by our region. This brings up the question of what kind of resort we want to be. As it stands, we are already the most expensive resort in Montana (see fig. 3).

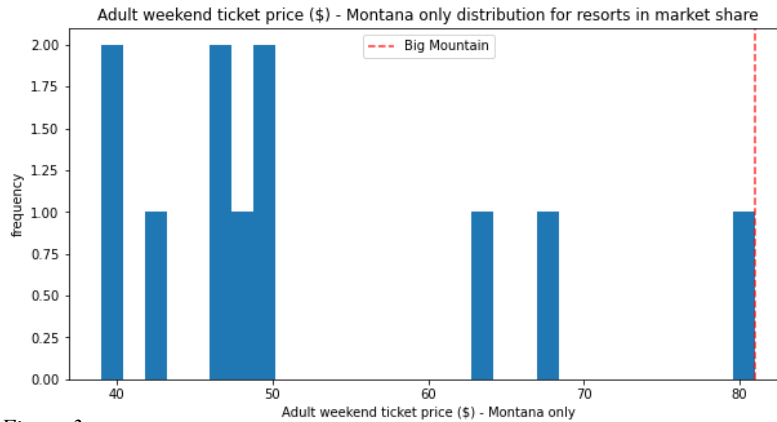


Figure 3

Nationally, however, we are still safely within the distribution. If we were to work towards relevance on a national level, our model's predicted price would make more sense contextually. When you take into account Big Mountain's current ticket price position on the national level (fig. 4) in addition to our high ranking among the vertical drop league (fig. 5), this revenue increase is not only attainable but quite reasonable.

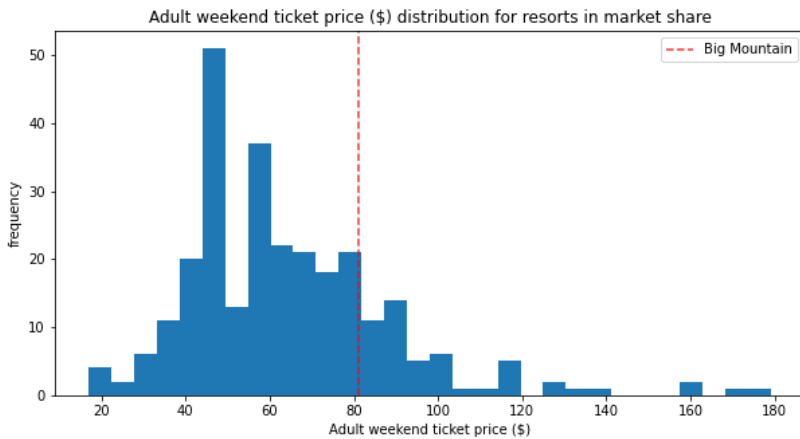


Figure 4

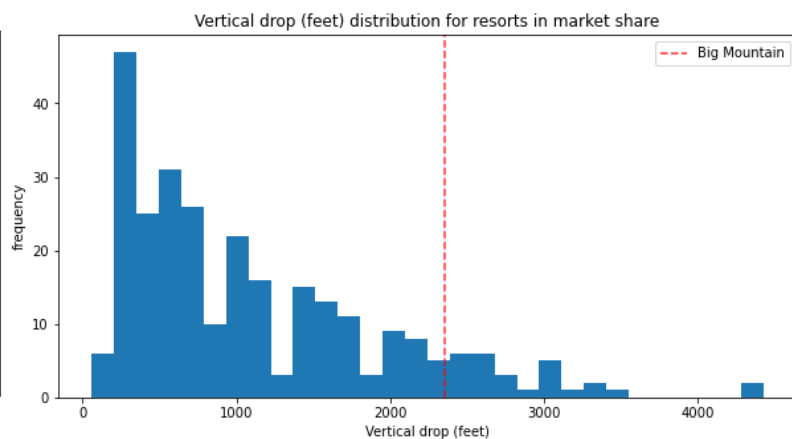


Figure 5

Lastly, if these insights have proven to be useful, refinements to the process can be made to make this accessible to our business analysts. This would allow them to re-evaluate our ticket prices and facility relevance seasonally to stay atop market trends.