Big Mountain Resort seeks actionable recommendations to refine ticket pricing and guide facility investments, leveraging insights from predictive modeling and scenario analysis. The findings focus on aligning pricing strategies with market dynamics and facility enhancements to maximize revenue.

Modeling results highlight that skiable terrain area and vertical drop are the most significant drivers of ticket prices, as indicated by the feature importance analysis (Figure 1: Feature Importance Plot). These features strongly influence pricing and position Big Mountain to command higher ticket prices. Additionally, price analysis across states showed that Montana's average ticket prices are below those of similar markets, such as Colorado and Utah, suggesting room for price increases without risking competitiveness (Figure 2: Average Ticket Prices by State).

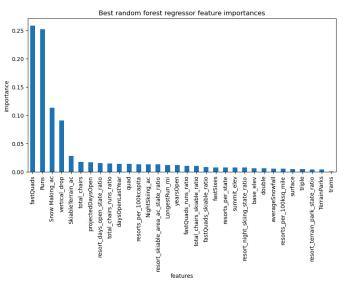


Figure 1: Feature Importance Plot

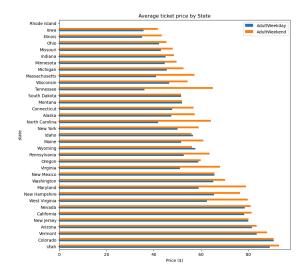


Figure 2: Average Ticket Prices by State

Big Mountain's current ticket price of \$81 falls short of the \$95.87 suggested by predictive modeling, given its facility offerings. A gradual price increase to \$83 is recommended to offset the \$1,540,000 operating cost of the new chair lift, assuming each visitor buys an average of five tickets. This adjustment balances cost recovery and market alignment while reflecting Big Mountain's enhanced facilities.

To further optimize revenue, Big Mountain should consider introducing a weekend premium, as observed in other high-performing resorts. Analysis of weekday versus weekend prices revealed that resorts with differentiated pricing strategies effectively capture additional revenue (Figure 3: Boxplot of Weekday vs. Weekend Prices). Implementing this approach would allow Big Mountain to capitalize on peak demand periods.

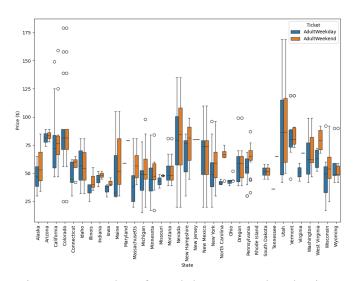


Figure 3: Boxplot of Weekday vs. Weekend Prices

Investment strategies should prioritize facility enhancements tied to the most significant price drivers, such as skiable terrain and vertical drop. These features not only justify higher ticket prices but also enhance the visitor experience. Additionally, underperforming features like night skiing and terrain parks should be evaluated for cost-saving opportunities. By focusing on high-impact investments, Big Mountain can maximize returns while maintaining operational efficiency.

In conclusion, a strategic increase in ticket prices, coupled with targeted facility investments, positions Big Mountain Resort to enhance profitability and market standing. Future analyses should assess the impact of these changes on visitor satisfaction and long-term financial performance.