There are four options that Big Mountain Resort is considering in regards to cutting costs or increasing revenue (from ticket prices). The options are: permanently closing down up to 10 of the least used runs; increase the vertical drop by adding a run to a point 150 feet lower down but requiring the installation of an additional chair lift to bring skiers back up, without additional snow making coverage; the previous option but with the addition of 2 acres of snow making cover; and increasing the longest run by 0.2 mile to boast 3.5 miles length, requiring an additional snow making coverage of 4 acres.

Running the first scenario through our model yielded that closing one run would make no difference in revenue intake. Closing 2 and 3 successively reduces support for ticket price which in turn reduces revenue as well. If Big Mountain were to close down 3 runs, they might as well close down 4 or 5 runs as there is no further loss in ticket price. Closing 6 or more runs would lead to a very large drop in ticket price. In the second scenario, the model suggests that Big Mountain raise its ticket price by $1.99. Over the season, it is predicted that the revenue will amount to $3,474,638. The third scenario, which is the same as the second scenario with the addition of 2 acres of snow making, resulted in the same predictions as the second scenario. This implies that increasing 2 acres of snow would make no difference in ticket price nor revenue. The fourth scenario resulted in no difference whatsoever in ticket price and revenue.

In conclusion, I would recommend that Big Mountain Resort increase the vertical drop by adding a run to a point 150 feet lower down (requiring the installation of an additional chair lift to bring skiers back up) without additional snow making coverage. This scenario would yield the optimal ticket price increase while also maximizing revenue and avoiding any superfluous addition of other features of the resort.