

**1. iii. What does the  $R^2$  mean?**

R-squared measures how much of the variation in the percent of customers who visited BookEmporium.com and purchased Harry Potter book 7 is explained by the price of the book. Since R-squared is very high in this regression, it means the price of the book explains almost all of the variation in the response variable.

**2. b. Which cost point should you accept from the publisher?**

We would accept the cost point of \$4.50 per book from the publisher in scenario II. The analysis indicates that this scenario will be the most profitable. At a 30,000-order minimum, a sale price of \$7.82 per book results in a maximum profit of \$99,587. In scenario III, although the publisher offers a lower cost point of \$4.00 per book, to move their 50,000 order-minimum a lower book sale price of \$5.95 per book leads to a diminished profit of \$97,607.

**3. a. What are the risks of using Harry Potter 7 data in predicting your new demand curve for the Harry Potter Sequel?**

While forecasting demand attempts to mitigate the risk of uncertainty, it may not be accurate and thus there is potential for reduced profits. Past performance is not always a reliable indicator of future results and therefore predictive models are limited by their assumptions.

We do not have any historical data for sales of the Harry Potter sequel book. Therefore, we are using the Harry Potter 7 sales data to build our predictive model. One of the main risks surrounding this data is our assumption that the demand for Harry Potter 7 is similar to the demand of the sequel. While Harry Potter is still a popular book series, it is possible its popularity has already peaked, leading to inflated demand projections in our analysis.

**b. What other data would you like to perform your analysis?**

- Sales data for the rest of the books in the Harry Potter series
- Price points for new Sequel released books in today's market
- Overall consumer book demand for Harry Potter
- Percentage of people who read
- Number of books read annually
- Demographics and Income level of readers
- The date of when the sequel will be released
- Other books being released at the same time