

***BUDT758L: Pricing Optimization and Revenue Management***

**Team Project: Copa Cruise Case**

**Due: 10:00am EST, Wednesday, December 9, 2020**

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- **This is a team assignment. Each team can have NO more than 2 students.**
  - **A group only needs to submit ONE report with all members' names on the cover page.**
  - **No cooperation among/between teams is permitted.**
  - **You should submit your team project online through Canvas before the due date.**
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Read the Copa Cruises – Welcome Aboard case. The excel file Copa-Data-File.xls is available on Canvas. Answer the following questions.

The project submission should be **NO** more than 5 pages including figures and tables. Please specify your methodologies, models and the analysis in the submission. If you develop Solver models, show the screenshot of the Solver models.

- 1) Download the Excel file that includes the data. Assume that Copa charges a single price per person for all events.
  - a) What is the price (per person) that maximizes expected revenue per event for Copa?  
What is the expected revenue per transaction for that price?
  - b) Assuming the annual number of inquiries remains the same, what would be the total expected revenue for the company if the price you determined in part (a) is used? How does the annual expected revenue compare to the total revenue earned by Copa in 2007?
- 2) Analyze the data to determine whether there are multiple price segments.
  - a) What is your segmentation criterion? Explain clearly.
  - b) What is the revenue maximizing price for each segment? What is the expected revenue for each transaction in that segment? (You have to repeat the analysis in part (1) for each of the segments.)
  - c) What is the annual expected revenue for Copa for each segment? (Considering the transactions corresponding to each of your segments in the data file, you can determine how much revenue Copa would earn in each segment.) How does the expected annual revenue of Copa compare to total revenues in 2007 if optimal price for each segment was used?
- 3) The case mentions each contract in the data set had the same cost. Suppose this was not the case. Answer the following question assuming there is no segmentation.
  - a) Will the profit maximizing price be different than a revenue maximizing price?
  - b) Would differences in costs affect your segmentation criteria? Why or why not?

- 4) The case mentions that each group was of the same size. Suppose this is not true. How would your analysis in (1) and (2) change?
- 5) Currently, the events are first screened by availability of vessels: no contract is prepared for an event if Copa is booked entirely for the desired date/time of the event at the desired location. The data set does not include any information on the events where the customer was immediately turned down due to lack of availability.
  - a) Is screening the reservations inquiries by availability a good strategy? Why or why not?
  - b) Can you suggest a better way to manage the group reservations and pricing at Copa? How can Copa further improve its pricing process? What additional information would you provide to the event coordinators to better manage the reservations and pricing?