

EVA ASCARZA

Travelogo: Customer Segmentation Instructions

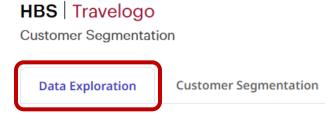
Introduction

The "Travelogo: Customer Segmentation" application is an interactive tool that enhances engagement with the *Travelogo: Understanding Customer Journeys* case by allowing you to explore the company's data. Through this tool, you can examine the variables used for segmentation, analyze the resulting customer "personas" that emerge from clustering different datasets into distinct groups, and identify actionable insights that will shape Travelogo's marketing strategies.

Using the Exercise

- 1. Go to the "Travelogo: Customer Segmentation" application. Your instructor will give you directions.
- 2. The application has 2 tabs, as shown below. The first tab is labeled "Data Exploration."

Figure 1 "Data Exploration" tab



Source: Application.

The tab includes a summary of the data that is available to the data scientists, which includes 3 types: trip characteristics, session attributes, and engagement outcomes. Exploring this tab allows you to get a sense of the data collected and its distribution across the population.

The second tab is labeled "Customer Segmentation." This is where you will spend most of your time.

Professor Eva Ascarza prepared this exercise as the basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation.

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Figure 2 "Customer Segmentation" tab

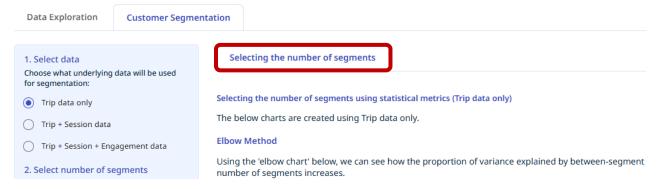


This tab summarizes the results of multiple analyses that the data scientists created, and is overall used to show insight as to which segmentation analysis better represents (for your needs) the customer base at Travelogo.

You will see several options that you can consider to segment Travelogo's customers. They will depend on the type of data you use to create the groups, and the number of groups that you create, based on those data. Clicking any option in the selection pane updates the charts on the "Customer Segmentation" tab. You decide which options to choose.

The "Customer Segmentation" tab has additional tabs within it. At first, you will see the "Selecting the number of segments" tab.

Figure 3 "Selecting the number of segments" tab



Source: Application.

- a. You first select the type of data used to form the segments. Here you decide which variables are determining which customers are grouped together.
- b. "Selecting the number of segments" provides some statistical tools to explore the amount of variance explained, and other metrics such as the silhouette method.

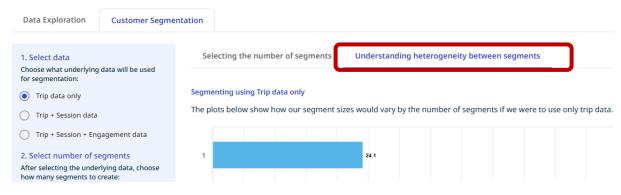
Data Exploration Customer Segmentation Selecting the number of segments Understanding heterogeneity between segments 1. Select data Choose what underlying data will be used Selecting the number of segments using statistical metrics (Trip data only) Trip data only The below charts are created using Trip data only. Trip + Session data Trip + Session + Engagement data Using the 'elbow chart' below, we can see how the proportion of variance explained by between-segment differences increases as the 2. Select number of segments number of segments increases. After selecting the underlying data, choose how many segments to create: Proportion of Total Variance Explained by Between-segment Difference 100% 3 4 5 6 3. Describe your personas 75% Based on the number of segments you chose, please write descriptions for your 50% Olivia 25% lake 20 12 Persona 3* The chart above has number of segments on the x-axis and the proportion of explained variance on the y-axis. After a certain number of segmentations, the marginal increase in % explained variance softens. This inflection point is the 'elbow', and suggests a reasonable Finalize and submit your customer segmentation below. number of segments houette Method

Figure 4 Statistical analysis on the "Selecting the number of segments" tab

Source: Application.

Next you select how many segments to create. When you select the number of segments, the "Understanding heterogeneity between segments" tab appears.

Figure 5 "Understanding heterogeneity between segments" tab

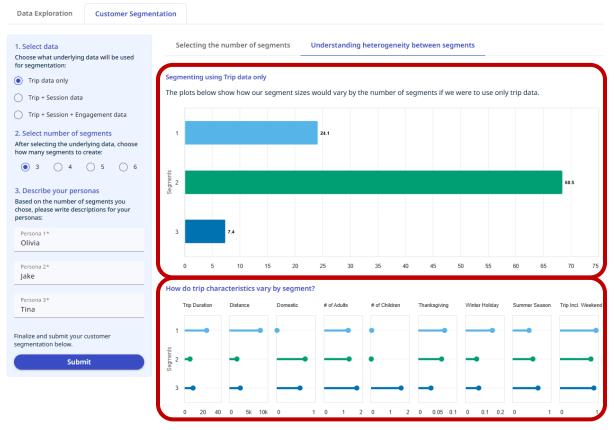


Source: Application.

d. "Understanding heterogeneity between segments" provides sufficient information to understand what the segment represents. First, you see the size of each segment. You also

will see the "average" behavior for each of the segments, regardless of whether that information was used to create the segments or not. For example, you will be able to compare the average trip duration for customers in Segment 1, for customers in Segment 2, and so forth. The same is true for the other variables, including clicks and purchases.

Figure 6 Information on the "Understanding heterogeneity between segments" tab



Source: Application.

- 4. When you have analyzed the data, you will make your choices in the selection pane, as you did when exploring the segmentations:
 - a. Select the data to use for segmentation.
 - b. Select the number of segments to create.
 - c. For each segment you created, write a description of the persona.
 - d. Click the "Submit" button.

(You can submit multiple times until the instructor closes the exercise. Only your most recent submission will be recorded.)

Data Exploration **Customer Segmentation** Selecting the number of segments 1. Select data Understanding heterogeneity between segments Choose what underlying data will be used Segmenting using Trip data only Trip data only The plots below show how our segment sizes would vary by the number of segments if we were to use only trip data.Trip + Session data Trip + Session + Engagement data 2. Select number of segments After selecting the underlying data, choose how many segments to create: 3. Describe your personas Based on the number of segments you chose, please write descriptions for your personas: Olivia Jake How do trip characteristics vary by segment? Tina Finalize and submit your customer segmentation below.

2 0 0.05 0.1 0 0.1 0.2 0

Figure 7 Entering and submitting your selections

Source: Application.