EVA ASCARZA

NICOLAS PADILLA

ODED NETZER

Travelogo: Understanding Customer Journeys

It was May 22, 2023, and Sarah Merino was concluding her first month as manager in the Customer Insights group at Travelogo, an online travel website that enabled users to book flights around the world and collect points from any airline. Merino had been approached by Mike Bower, the Senior Director of Marketing, who presented her with an intriguing task: to dissect the clickstream data to understand the nuanced needs of Travelogo's users. Bower explained, "We have a constant flow of users coming to our platform. I want to understand what they're looking for, where they're coming from, and, most importantly, how we can attract more of them and serve them better." Bower wanted a report by Friday; the marketing team was meeting the following week to decide on new product and promotion strategies aimed at increasing traffic and conversions.

Merino quickly decided how to proceed, she would leverage the clickstream data to identify Travelogo's "personas" – i.e., segments of users that exhibit distinct behaviors -- which she will then analyze to obtain insights and develop marketing strategies targeted to specific segments. With little time to spare, Merino immediately tasked one of the data analysts on her team with extracting the clickstream data from new users who had visited the website in the previous year. "I need you to focus on those who searched for return flights, segment the customers, and then tell me what you discover. Do you think you can have this ready by tomorrow?" she asked. The analyst nodded, and Merino moved on to her next meeting.

The Data and Segmentation Analysis

The initial step involved extracting relevant information that Travelogo gathers as users interact with the site. This included trip characteristics (derived from the trip queries), customer data such as the originating channel (e.g., whether the user came from an organic search), customer search patterns (for instance, whether they were using the app or web, or whether searches were conducted over the weekend), the number of products users clicked on during the search, and whether the search ended up in a purchase. All variables are presented in **Table 1**.

Armed with this comprehensive dataset, the analyst was ready to begin the segmentation analysis. After conducting some research, he stumbled upon a tool known as "K-means cluster analysis," which

automatically groups data into clusters of observations with similar traits. Merino had requested to "find segments of users"; this tool appeared to be ideally suited for the task.

However, Merino had not detailed which data should be used for the segmentation: Should it be just the trip characteristics, or should the search details be included as well? Perhaps all the available data should be utilized to form those segments? Moreover, Merino had not indicated the desired number of segments: Would three be sufficient, or might there be a need for more? Aware that Merino would be in meetings for the rest of the day, the analyst elected to compute several combinations and to employ a visualization tool to illustrate the various result sets. This approach would enable Merino to determine the most informative option.

The analyst summarized all analyses in a dashboard ("Travelogo: Customer Segmentation" application, HBS No. 525-706) and sent it to Merino right away.

From Segments to Insights

Armed with the segmented data and visualizations, Merino needed to find the answers that Bower was looking for. How many distinct segments were found in the data? What were these customers looking for? Could she summarize those insights in a useful way? And most importantly, could she recommend actionable insights that would help Travelogo grow its customer base?

Table 1

Variable	Description	Notes
id	Unique session identifier	
Trip characteristics		
distance	Distance of the trip	In miles
domestic	Whether the trip originated and terminated in the US	(=1: Yes; =0: No)
duration	Trip Duration (in days)	Inbound Date – Outbound Date
adults	Number of adults in the trip	
children	Number of children in the trip	
thanksgiving	Whether the trip occurs during Thanksgiving	(=1: Yes; =0: No)
winter	Whether the trip occurs during the Winter Holiday	(=1: Yes; =0: No)
summer	Whether the trip occurs during in summer season	(=1: Yes; =0: No)
weekend	Whether the trip includes a weekend	(=1: Yes; =0: No)
Session attributes		
search_weekend	Whether the trip was searched on the weekend.	(=1: Yes; =0: No)
search_advance	Number of days the trip was booked ahead.	
sign-in	Whether the user signed-up at the beginning of the search	(=1: Yes; =0: No)
email	E-mail	(=1: Yes; =0: No)
display	Display Ad	(=1: Yes; =0: No)
organic	Organic	(=1: Yes; =0: No)
mobile	Mobile	(=1: Yes; =0: No)
web	Web	(=1: Yes; =0: No)
app	App	(=1: Yes; =0: No)
Engagement outcomes		
session_time	Total time of the search process	In minutes
clicks	Number of clicks before purchase	
purchase	Did the customer make a purchase?	(=1: Yes; =0: No)

Source: Casewriter.