For 2017's ASA Datafest competition, we were given a 5GB dataset from Expedia.com, Expedia.ca, and Expedia.de that chronicled user activity and destination profiles for cities across the globe. Given its recent growth in international markets, my team and I decided to examine travel preferences of German customers during the hackathon.

First, we developed a linear model using external data regarding literacy rate, internet access, GDP, and age to confirm that Germany is an unsaturated market.

Then, we analyzed the given "popularity scores," numerical descriptors of how well a particular destination is known for a feature (e.g. New York City scores high for fine dining). With this data, we compared the top 50 cities for German and American customers, and the shared attributes among those locations. Then, we performed a 2-sample differences of means t-test to determine which cultural, lifestyle, and travel preferences were significantly different between these two markets.

We found that Germans, compared to Americans, are more interested in cities with rich cultural features (e.g. museums and architecture) and outdoor activities (e.g. waterfall scenery and hiking).

Furthermore, we determined that Americans and Germans associate different cities with different activities. For example, while both Germans and Americans go to Miami for night clubs, Germans prefer to go to Amsterdam for musicals, while Americans flock to New York City.

Given our insights, our final recommendation to Expedia is to optimize marketing and advertising efforts within Germany leveraging these distinct preferences. For example, the homepage should push more locations known for nature or cultural activities to immediately capture the interest of new users. Search results should prioritize lodging with convenient access to popular activities such as museums or hikes. Furthermore, by partnering with third parties that specialize in services popular among Germans, such as ecotourism, Expedia can improve conversion rates and ad revenue.

[All analysis was done using Excel, R, and Tableau.]

germany

united
states

vegas

miami

new york

amsterdam

casino

art

musicals

nightclubs

food

museums

business