

DATAFEST SUMMARY

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Objective:

Our overall goal is to determine the frequency in which users of Expedia book a trip. In order to determine this frequency we need to calculate the total number of trips that are booked and divide that by the total number of clicks that Expedia records. After making this calculation we want to plot them and see whether or not this frequency is higher for non-mobile devices than using a mobile app. The reason for this belief is that people tend to use their cellular device to look up certain trips, but do not actually execute the booking. So we predict that people are more comfortable sitting at their computer and booking the trip than doing it on their mobile device. We also want to take this a step further and look to see if this general trend would be different for the United States, than non-U.S. countries. So this is what we believe to be true, but it is necessary to back this up with statistical evidence.

Procedure:

In order to analyze the data we first started by filtering the data into two subsets. One subset contained U.S only locations and the other contained all other non-U.S locations. In addition, we also filtered each of those subsets to only include dates that were in the year 2015. The reason for doing this is that there was very little data for the years 2014 and 2016, but a lot of data for 2015. After trimming the initial data set, we went on to find the booking rate for each day in 2015 for both the U.S and non-U.S subsets. Our definition of a booking rate for any given day is the total number of times people book divided by the total number of clicks. Once we gathered the booking rates for each U.S and non-U.S subset, we furthered analysed each subset by finding the booking rates on mobile and non-mobile devices.

Conclusion:

We found that in the US the trend started off with mobile booking rate being less than the non-mobile booking rate. But sometime around September 2015, mobile booking rate surpassed non-mobile. We thought about this and saw that Expedia released their Partner Central App on July 30, 2015. So we hypothesized that this caused the spike in mobile booking rate. We could not see data from other years so we did not know if this trend happens every year or is unique for just 2015. Although you cannot actually book in the EPC app, the app is meant to generate better customer service and analytics about ads and purchases. We think that this may have been enough for this spike in mobile booking rate to happen. As this spike did not happen outside of the US, **we recommend that Expedia markets for mobile booking more outside of the US.**