

Annual Trends of Searching and Booking in the U.S.

Team Name: Statistically Significant

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- Significance
 - Approximately 70% of profit Expedia makes comes from hotel reservations. By looking at the annual rate of booking, when people tend to travel the most can be shown which would help increasing the booking rate thus more profit.
- Only domestic data
 - In order to increase the quality and accuracy of analysis
 - The reasons behind higher number of booked search during certain month can vary by country or culture.
 - The US has significantly higher number of total search than other countries.
- Total Searched and Booked over Month graph
 - Shows the trend of total search in blue, not booked in red, and booked over months in green.
 - The changes in total search and not booked over months is significant while the number of bookings stays relatively stable.
 - This shows more people are using Expedia and travelling in summer, but fewer in the end of year, probably because they are going home or they are not willing to travel in a long distance around Christmas/New Year.
- Heat map - the number of bookings received by month across different states
 - Note that the upper bound is 2000.
 - There were only few states with numbers greater than 2000 which makes the whole map harder to show the differences.
 - 6 states with greatest number of bookings
 - California, Nevada, New York, Texas, Washington, Florida
 - It can also help to determine when and how to start the advertisement according to the shades. For example, Expedia might want to increase advertisements in the month when the grid is pink or white, to encourage people to book their trips early and therefore capitalize on the popularity of the destination.
 - pink/white - more ads about low prices and convenience (E.g. 6 states)
 - Light blue/dark blue - more ads about convincing people to go, and highlighting attractions (E.g. Alaska)
- Users Searching for Popular Destination
 - The dots shows the location of searchers for the 6 most popular state and the duration of their trips. The color of states shows the household income.
 - The graph can be used to specify advertisement in US.
 - States in blue with greater household income -> Expedia can target advertisements selling long-term trip/ luxury hotels
 - States in green/white - poor -> Expedia can target advertisements low-price hotels