

The logo for Hyatt Hotels & Resorts. The word "HYATT" is written in a white, sans-serif, all-caps font. A red, curved swoosh underline is positioned beneath the letters "Y", "A", and "T". The entire logo is set against a dark blue background.

HYATT

HOTELS & RESORTS

Data Analysis Project

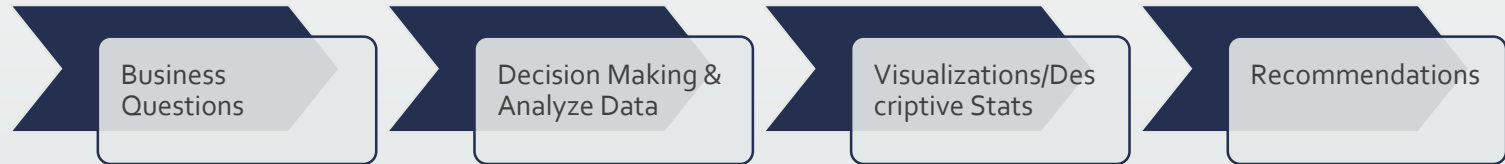
IST 687

Project Description

- Hyatt Hotels decided to perform an extensive consumer survey that occurred from February 2014 until January 2015.
- Survey reflected several different categories including personal customer data, ratings of hotel personnel, hotel services, hotel amenities and geographical hotel locations.
- Our group was tasked with coming up with recommendations for Hyatt to better improve NPS scores.



Presentation Schedule



Business Questions

- Business Question #1: Which hotel services variables impact a “Business” customers’ stay?
- Business Question #2: Which hotel services variables impact a “Leisure” customers’ stay?
- Business Question #3: What state in the United States would be best to look at given their number of detractors and total number of respondents?
- Business Question #4: Is the purpose of the respondents’ visit a direct indicator on their NPS scores?



Assumptions

- Assumption 1: Everyone who took the survey completed it with honesty and integrity.
- Assumption 2: It is possible to enhance the experience of detractors and passives to change them to promoters overtime.
- Assumption 3: Analyzing four out of twelve months of data will give us enough information to provide solutions to the hotel's business practices.
- Assumption 4: It is not possible to change the human variability of people staying in a given hotel, it is only possible to change the services and amenities of a given location.
- Assumption 5: The categorical variables can be objectively used by people staying for either leisure or business or can be apparent in both.



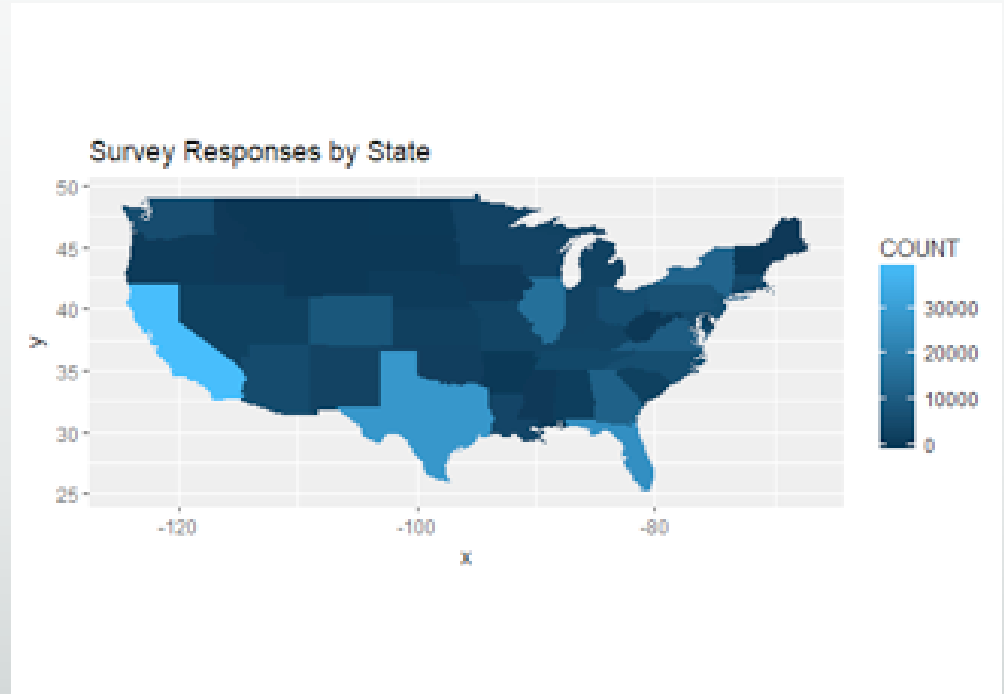
Data Selection

- Group decided to look at survey data from 4 out of the 12 months of year
- We wanted to select a month from each season
- From here we determined the location and brand of Hyatt we wanted to look at



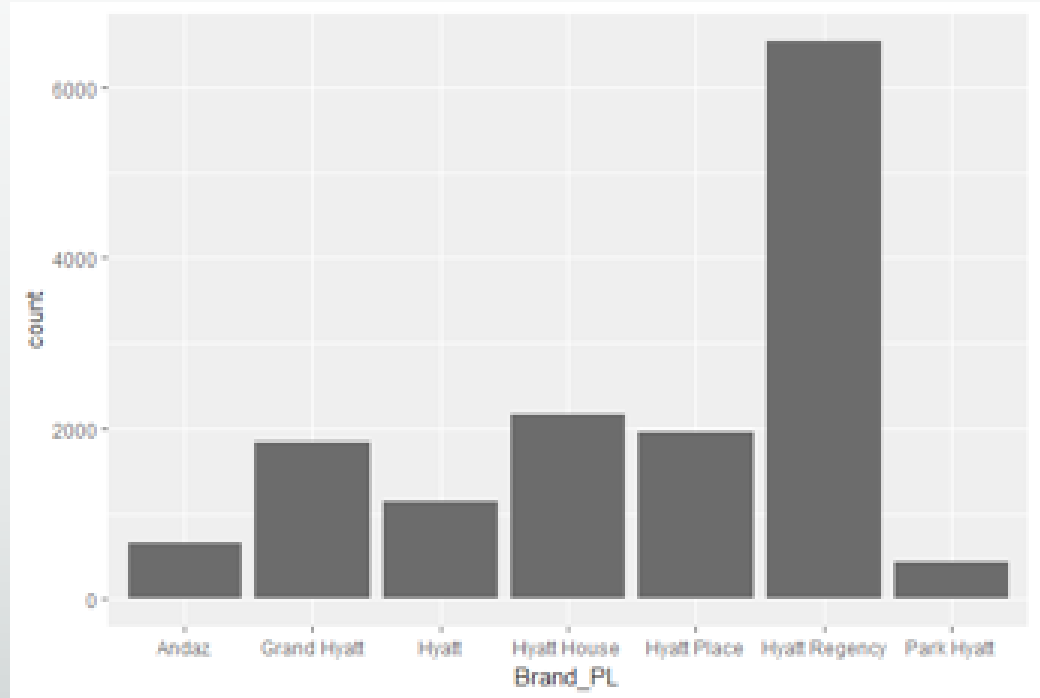
Location Selection: California

- The to the right shows a total count of survey respondents in the US.
- We decided to use california because they had the greatest response amount.



Hyatt Brand Selection: Hyatt Regency

- Bar Graph shows the greatest number of respondents in the survey came from those staying in Hyatt Regencys.



Linear Models

- In simplest terms we used a data science technique that allowed us to see what Independent variables were affecting the dependent variable or (likelihood to recommend).
- Independent Variables we looked at were intern, customer service, check-in rating, hotel condition, tranquility, staff cared.
- Essentially, our findings saw that the following variables had a significant effect on the customer's likelihood to recommend.

INDEPENDENT VARIABLE



What I CHANGE



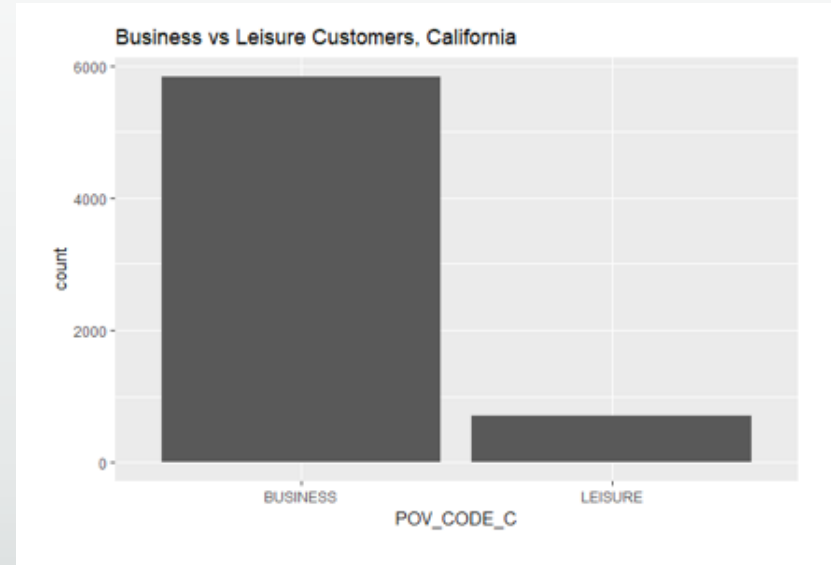
DEPENDENT VARIABLE

What I OBSERVE



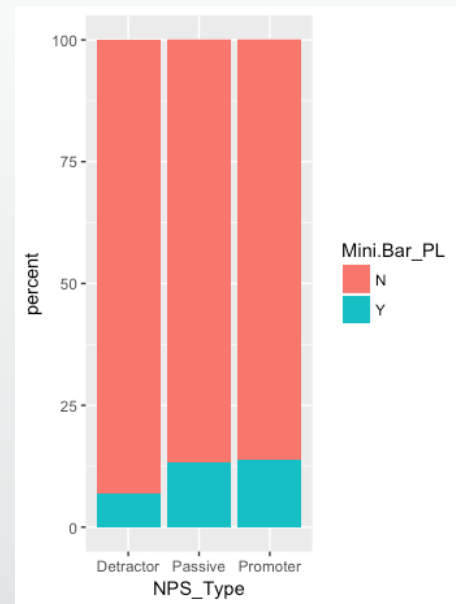
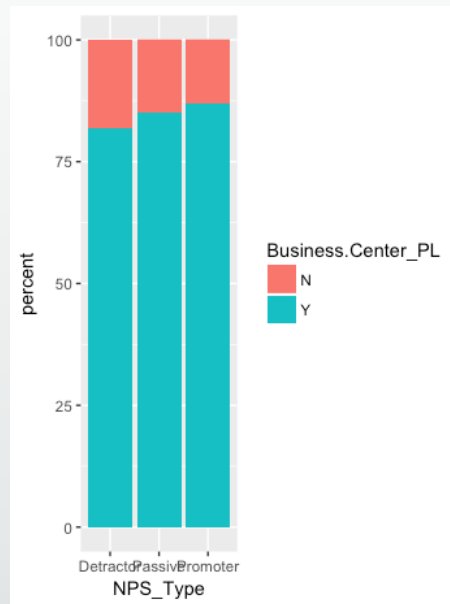
Purpose of Stay Distribution

- Graph to the right shows a distribution of business vs leisure customers in California.
- We saw that a large majority of customers were staying at the Hyatt Regency for Business purposes.



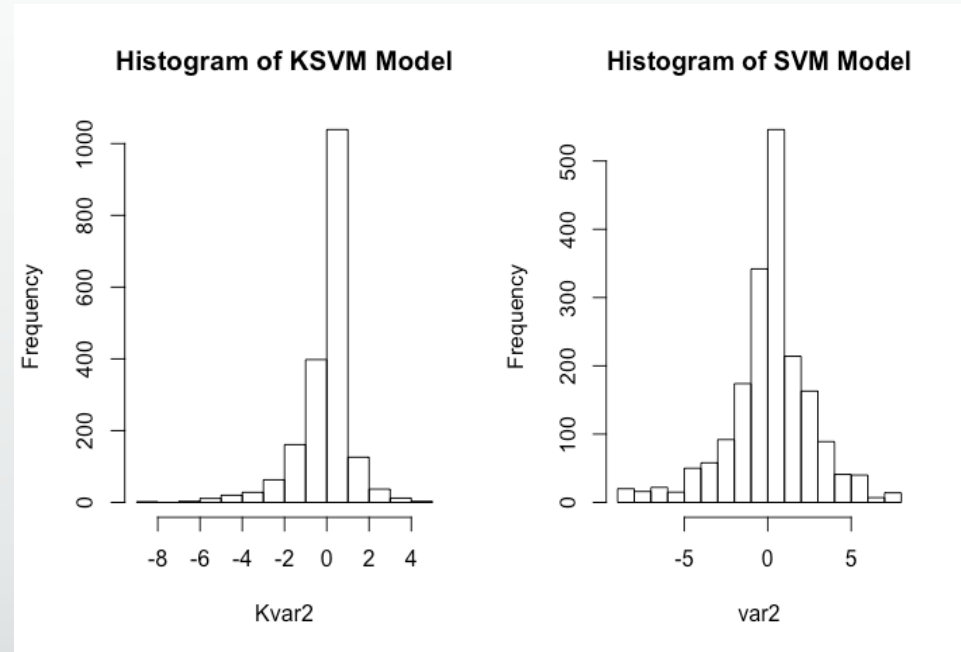
A-Rules

- We wanted to look at events that could happen given our knowledge of something else that has happened
- Looked at variables such as minibars, business centers, etc and whether or not they were apparent given certain situations
- From here we were able to find the probability of someone being detractor



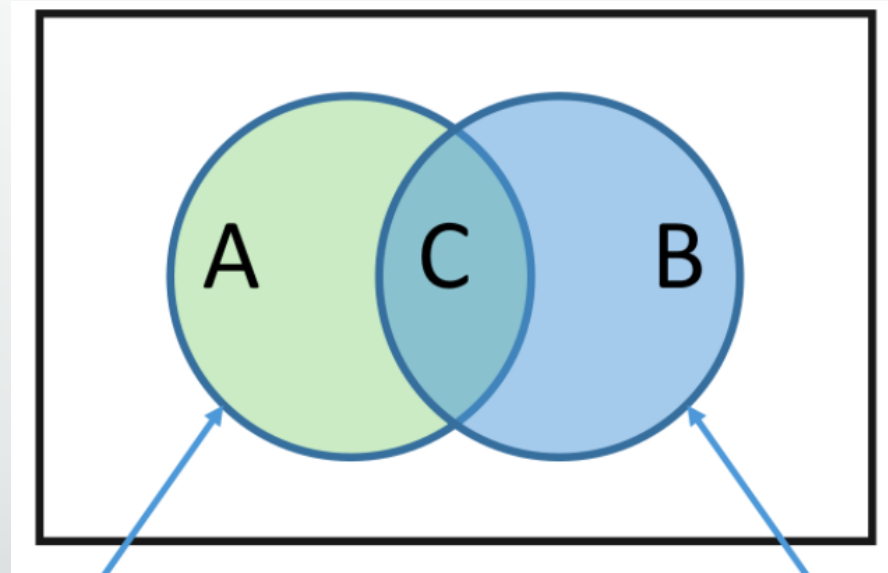
KSVM/SVM

- Predictions of our dependent variables
- For us we looked at NPS_Type
- These model looks at all of the data
- 15.9% error



Naive Bayes

- Predict NPS Type given a set of variables
- Hotel condition, tranquility, staff cared, check in number, internet satisfaction, convention center, business center, spa, mini bar and customer service
- 22.3% Error which we were happy with and supports our findings.



Recommendations

Recommendation #1: Improve Hotel Customer Service. Maybe hire more customer service representatives to ensure speed and quality.

Recommendation #2: Improve the condition of the hotels. Hotel condition was seen as important on customer's likelihood to recommend. Ensure hotels are clean and up to date.

Recommendation #3: Ensure things like mini-bars are available and up to good condition. One thing Hyatt could do is a increase the supply of drinks in each mini-bar

Recommendation #4 Make sure business centers are available in the hotels.



THANK
YOU!