

HYATT HOTELS REVIEWS : DATA ANALYSIS

IST 687: Applied Data Science(M003)

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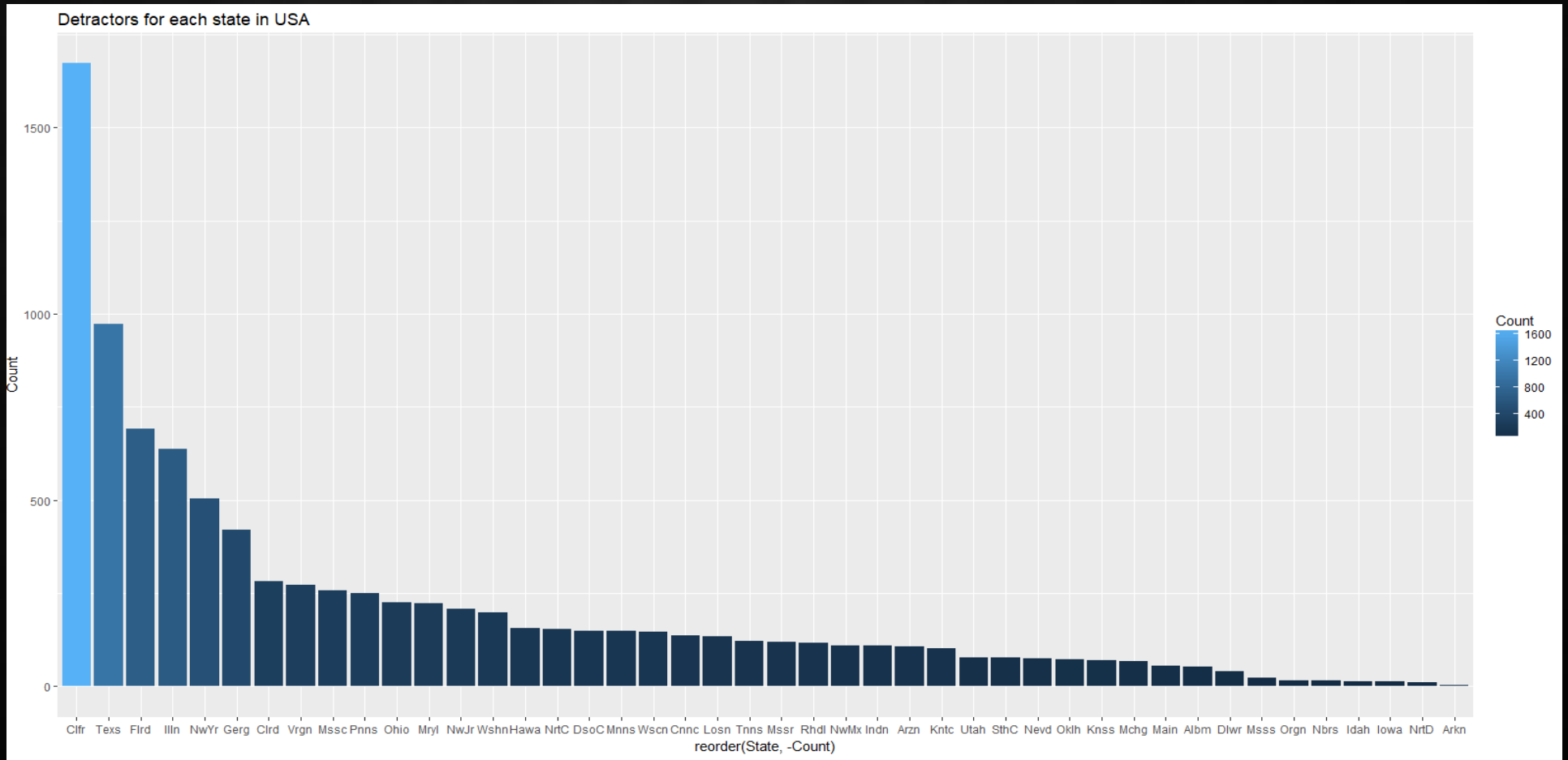
- Business Questions
- Our data
- Interesting Analyses
- Useful Models
- Actionable Insights
- Questions

BUSINESS QUESTIONS

1. What factors were considered while choosing the subset for analysis to achieve overall high NPS score?
2. On what factors do the 'Likelihood to Recommend' and 'NPS Type' have the highest dependency?
3. What is the effect of NPS on the Hotel Brand and Purpose of Visit?
4. What is the effect of age group on the NPS score
5. What are the recommendations you can provide to improve the NPS score of Hyatt?

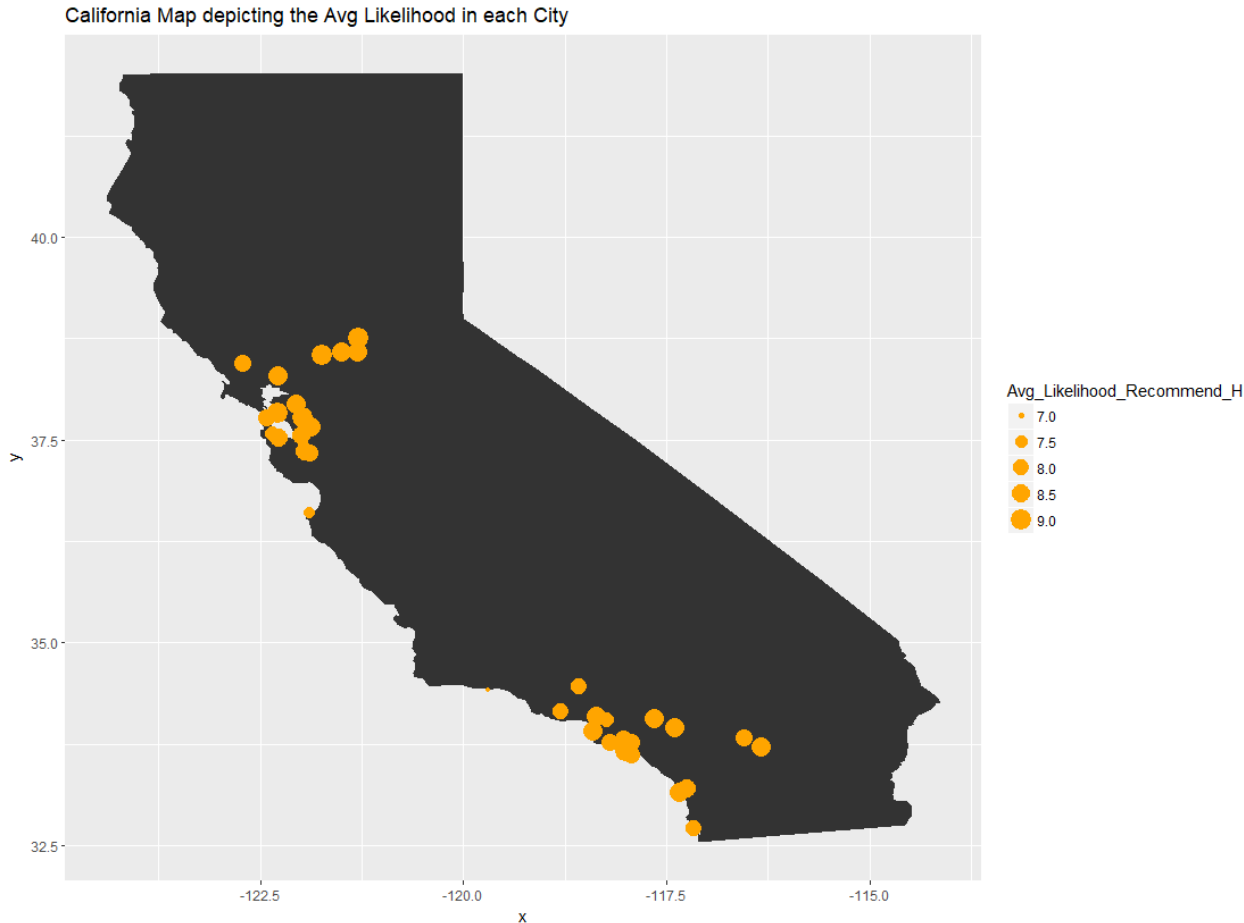
WHAT FACTORS SHOULD BE CONSIDERED WHILE CHOOSING THE SUBSET FOR ANALYSIS TO ACHIEVE OVERALL HIGH NPS SCORE?

- Our subset: The State of California in the month of August, 2014.
- Why?



CALIFORNIA STATE MAP

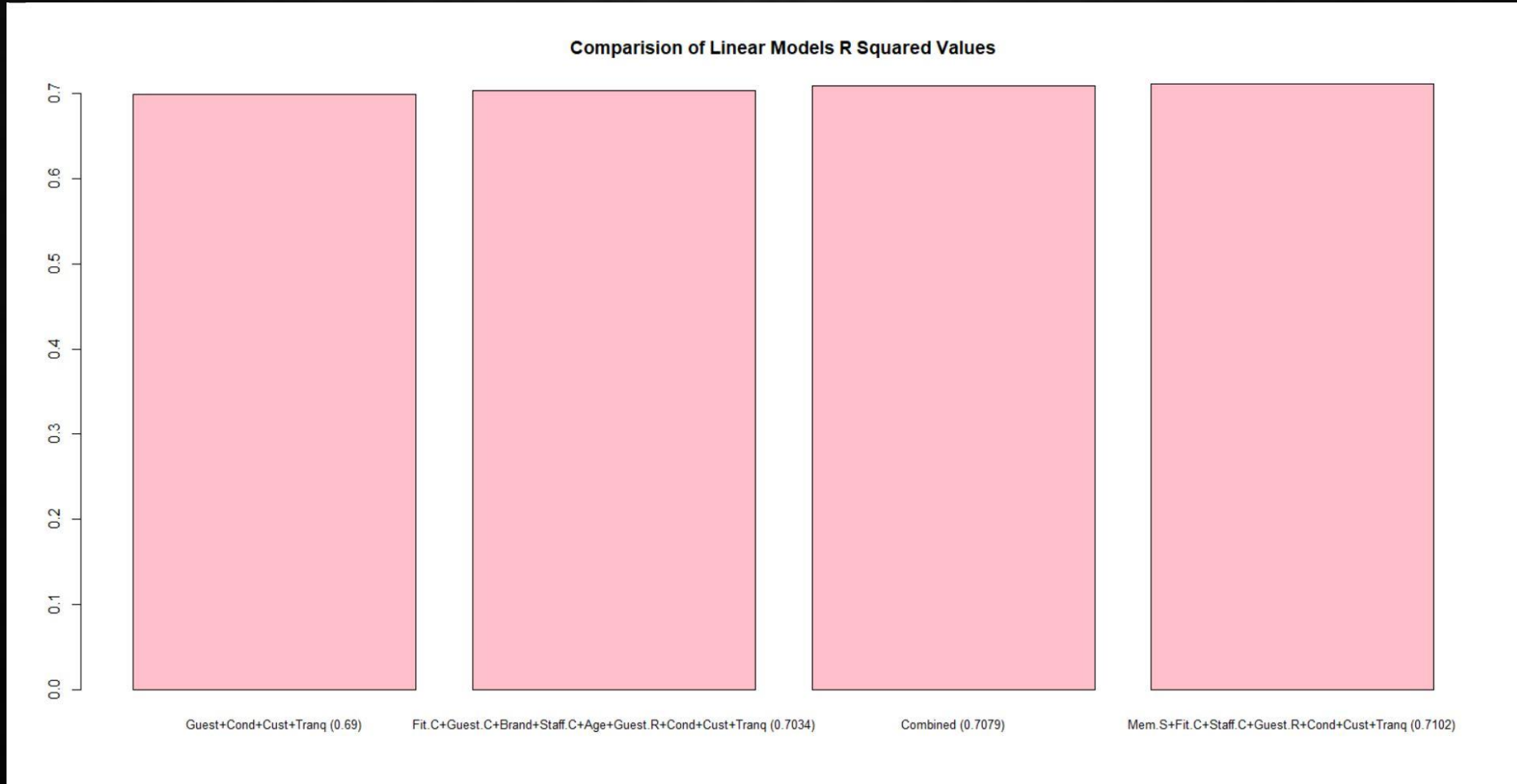
- The map depicts the spread of Average Likelihood score across the different cities in California.
- San Diego, San Francisco, Los Angeles have the highest LTR.
- San Barbara, Monterey, Burlingame



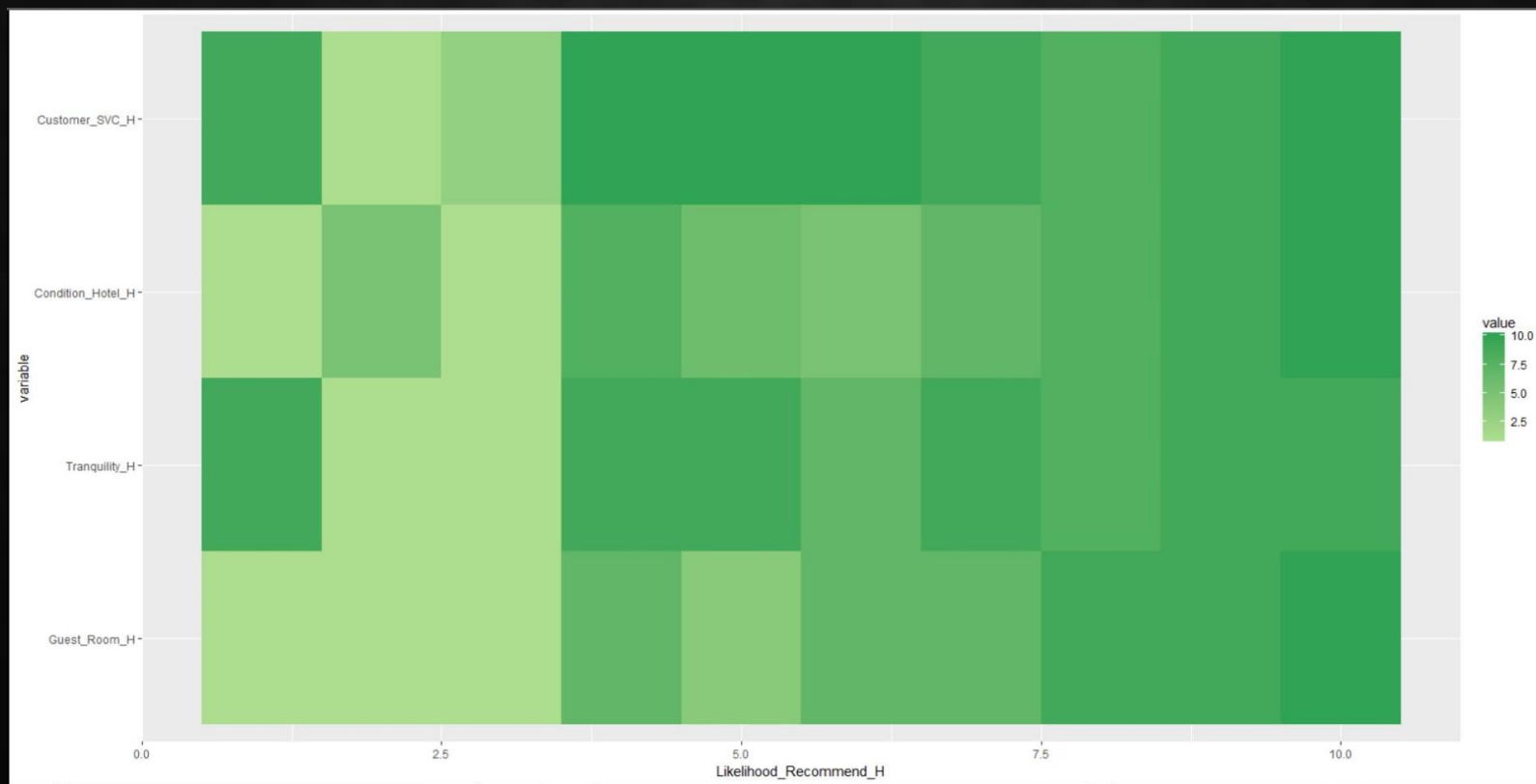
ON WHAT FACTORS DO THE 'LIKELIHOOD TO RECOMMEND' AND 'NPS TYPE' HAVE THE HIGHEST DEPENDENCY?

- Highest dependency factors for NPS Type/Likelihood to Recommend:
 - Hotel Condition
 - Guest Room Condition
 - Customer Service Satisfaction
 - Tranquility
 - Age Range
 - Member Status
 - Hotel Brand
 - Fitness Center

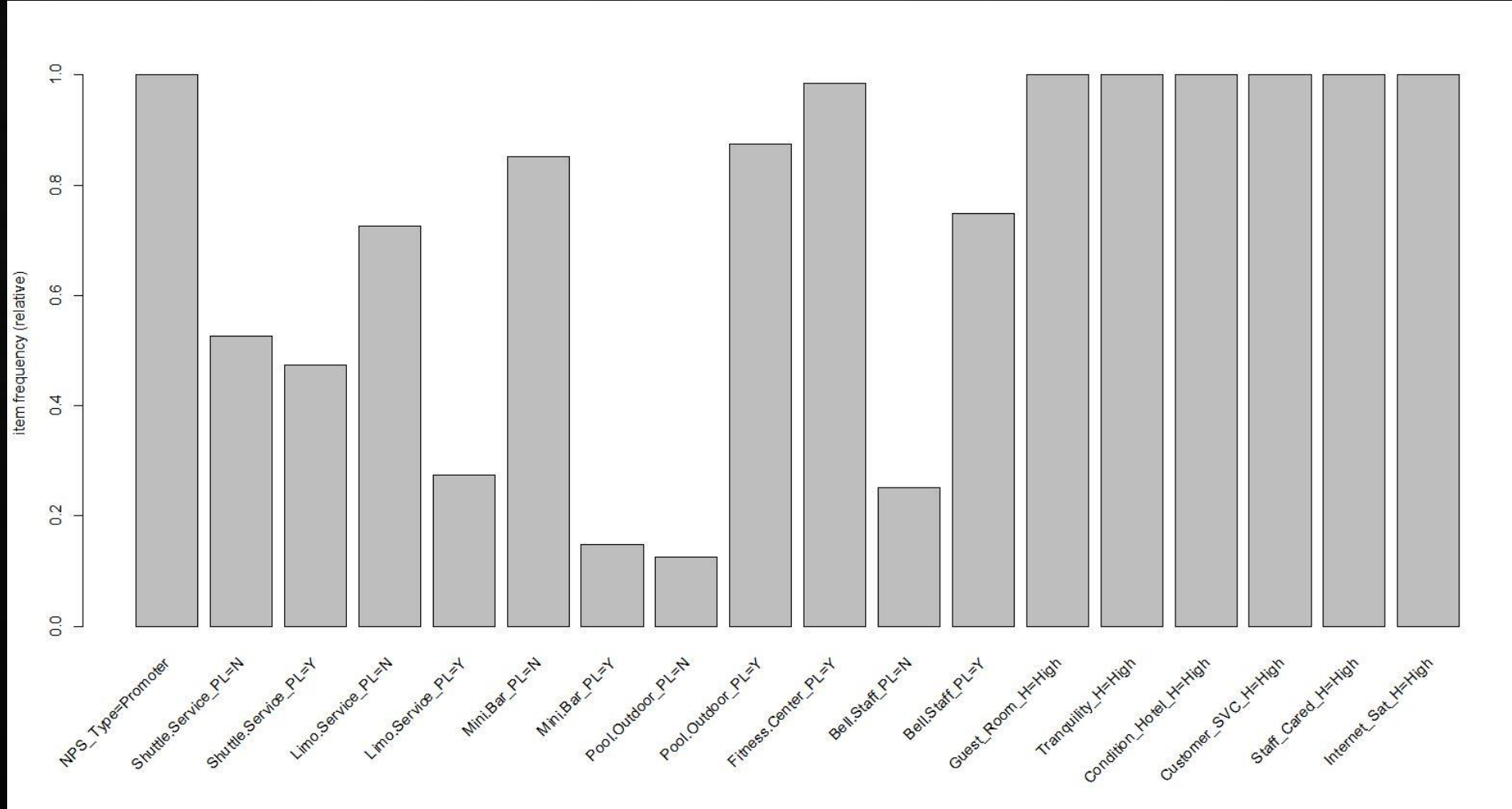
COMPARISON OF R-SQUARE VALUES OF DIFFERENT MODELS



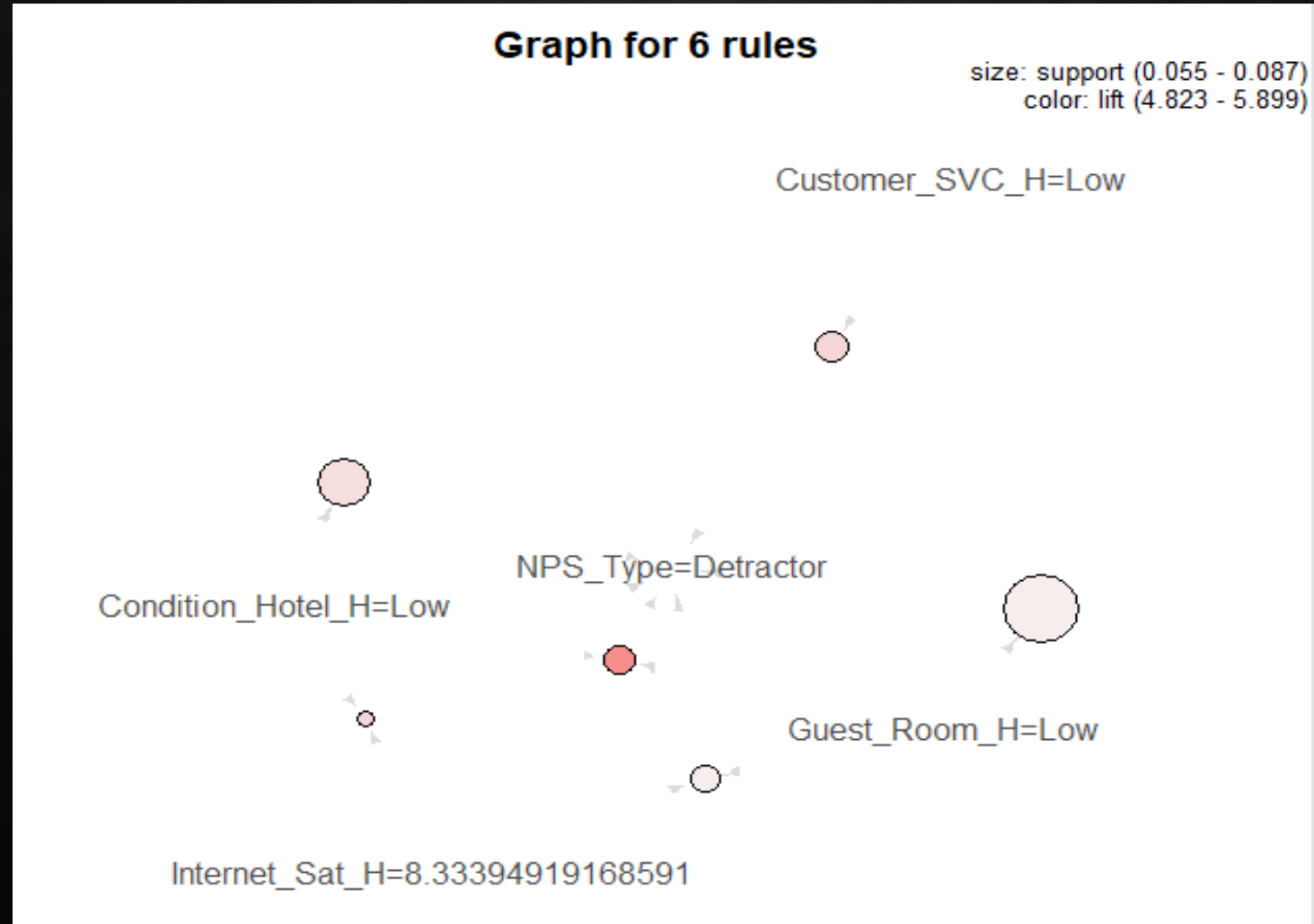
RESULTS OF THE BEST MODEL



FACTORS CONTRIBUTING TO HIGH PROMOTER SCORE

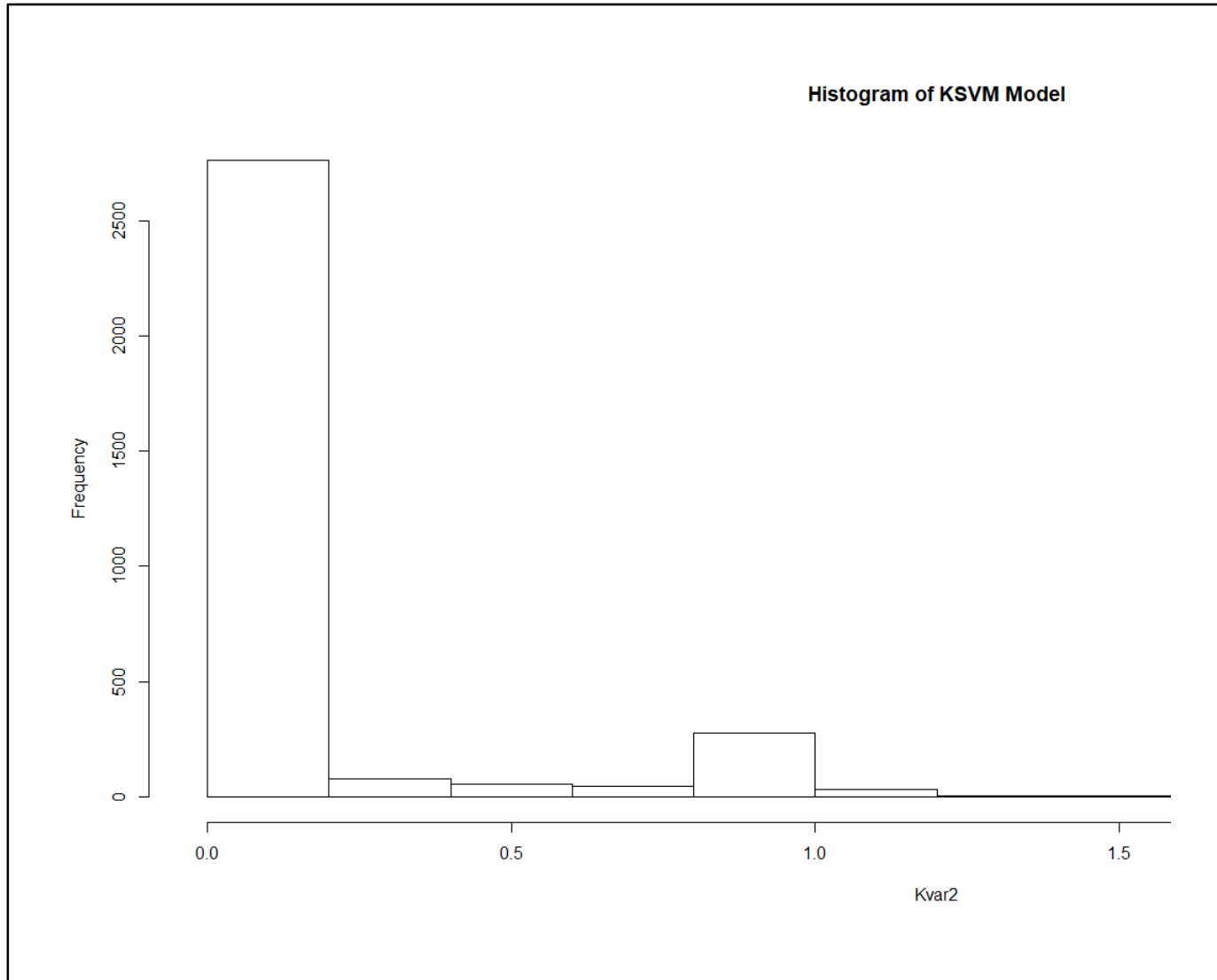


FACTORS CONTRIBUTING TO HIGH DETRACTOR SCORE



PREDICTION MODEL ACCURACY

- We performed Supervised Learning to train the machine to predict the NPS using the Amenities and Survey columns.
- The accuracy of the model was calculated by comparing the predicted and the actual values.



DESCRIPTIVE STATISTICS :

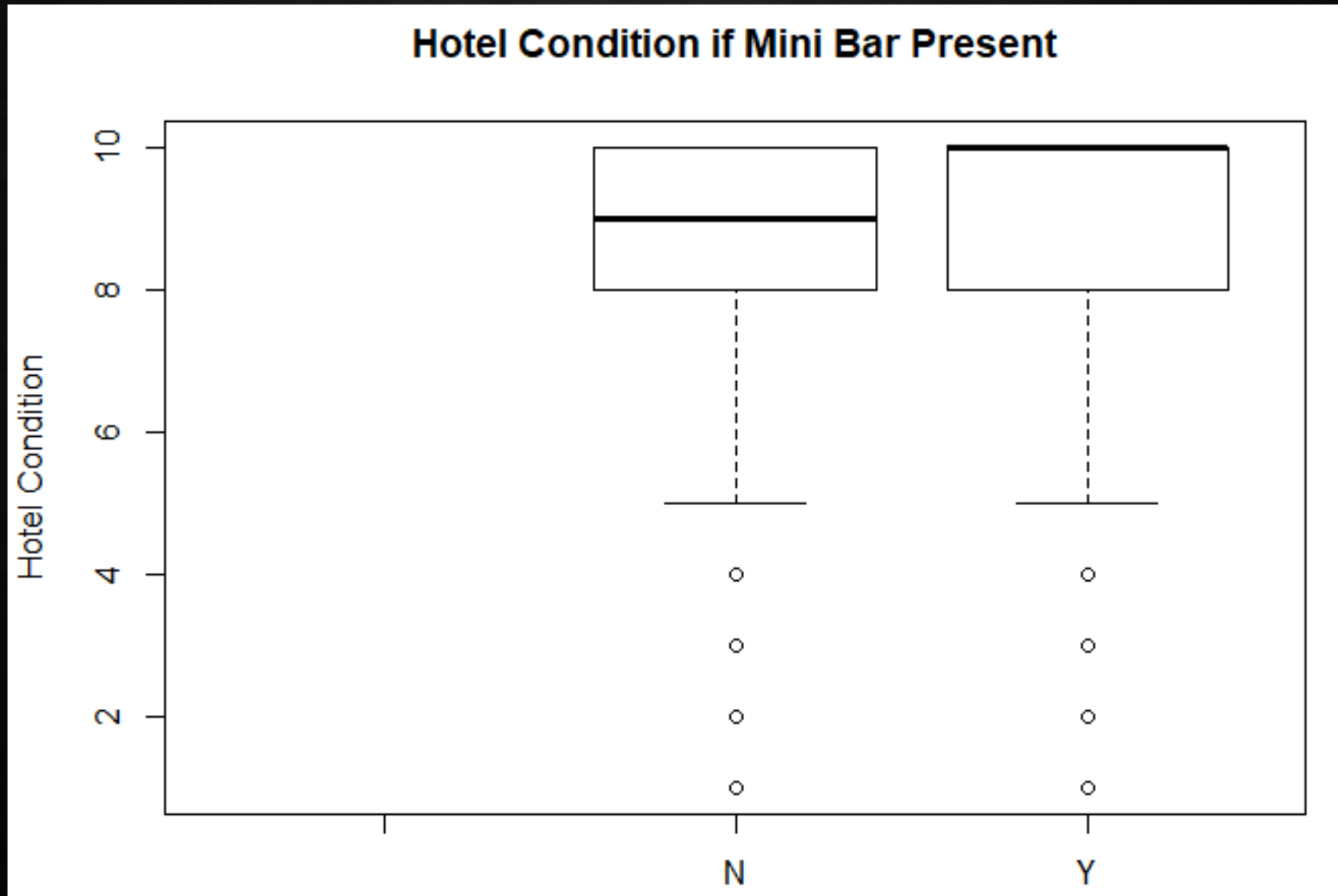
ANALYSIS OF LIKELIHOOD TO RECOMMEND BY ROOM TYPE.

ROOM_TYPE_DESCRIPTION_C	length	RoomTypeDMean	RoomTypeDMin	RoomTypeDMax	RoomTypeDMedian
Guest Room King	1545	8.232362	1	10	9.0
Guest Room Double	1023	8.286413	1	10	9.0
Guest Room King Bed	714	8.745098	1	10	9.0
1 Bedroom King	655	8.897710	1	10	10.0
2 Queen Beds	310	8.906452	1	10	10.0
Guest Room 2 Double Bed	286	8.625874	1	10	9.0
Guest Room Queen/Queen	232	7.956897	1	10	9.0
Studio King	175	9.091429	1	10	10.0
Pool View King	167	8.574850	1	10	9.0
Deluxe King	154	8.532468	1	10	9.0
Club King	146	8.691781	1	10	9.5
View King	141	8.815603	1	10	9.0
High Floor King	135	8.288889	1	10	9.0
Bayview Balcony King	106	8.773585	4	10	9.0
ADA King Tub	103	8.495146	1	10	9.0
Guest Room Double/Double	100	7.570000	1	10	8.0
King Bed	98	8.530612	1	10	9.0
1 Bedroom King Bay View	97	9.072165	2	10	10.0
City View King	91	8.791209	1	10	9.0
Golf View King	86	8.232558	1	10	9.0
Deluxe View Queen/Queen	82	7.560976	1	10	8.0
Park King	79	9.050633	1	10	10.0
View Double	79	9.177215	3	10	10.0
Ocean View King	70	8.385714	2	10	9.0

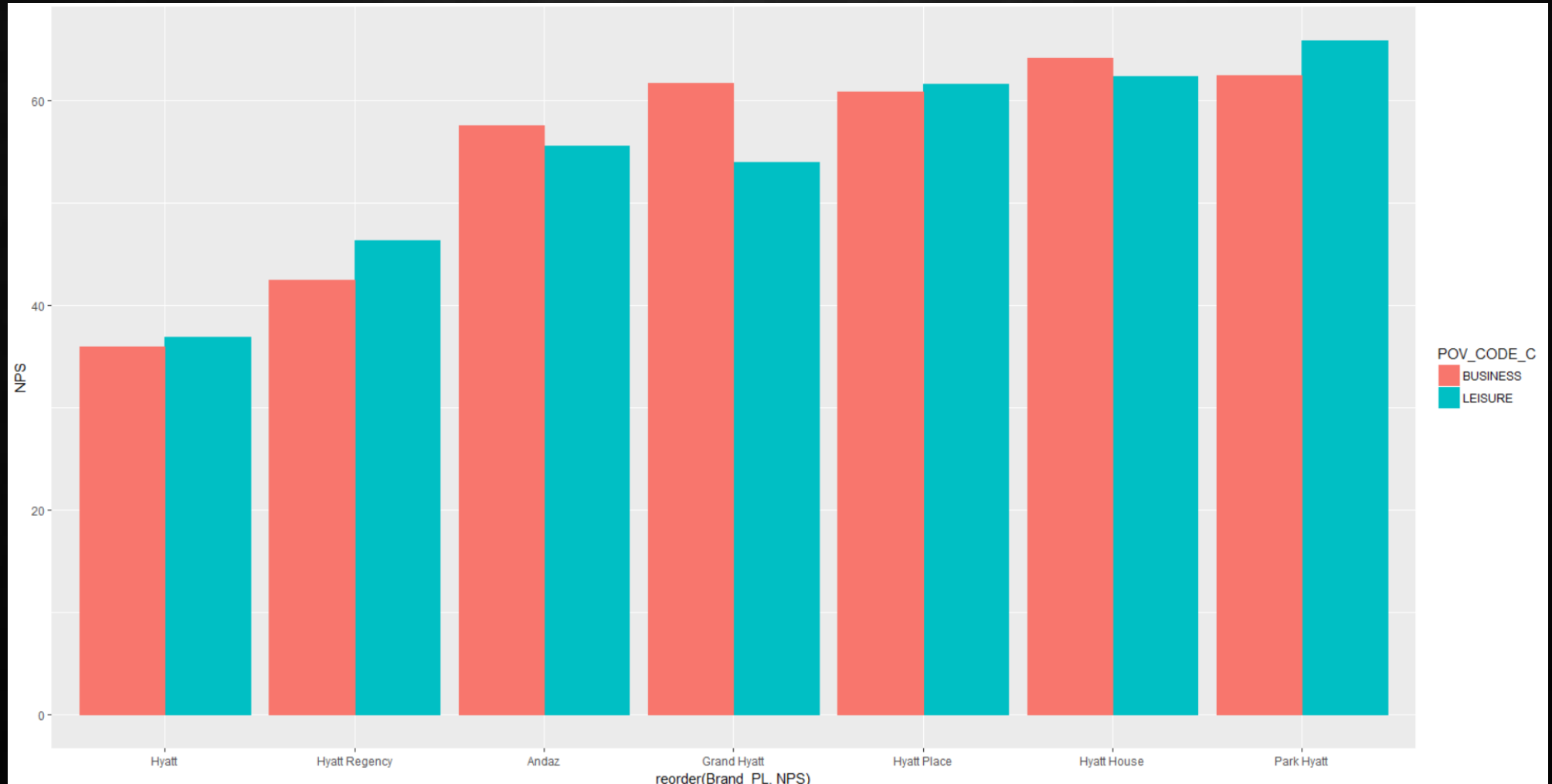
GUEST ROOM CONDITION BY ROOM TYPE.

ROOM_TYPE_DESCRIPTION_C	length	RoomConMean	RoomConMin	RoomConMax	RoomConMedian
Guest Room King	1545	8.394732	1.00000	10	9.00000
Guest Room Double	1023	8.250042	1.00000	10	9.00000
Guest Room King Bed	714	8.899304	1.00000	10	9.00000
1 Bedroom King	655	8.854383	1.00000	10	9.00000
2 Queen Beds	310	8.998443	1.00000	10	10.00000
Guest Room 2 Double Bed	286	8.895346	2.00000	10	9.00000
Guest Room Queen/Queen	232	8.024078	1.00000	10	9.00000
Studio King	175	8.803152	1.00000	10	9.00000
Pool View King	167	8.760685	3.00000	10	9.00000
Deluxe King	154	8.626959	2.00000	10	9.00000
Club King	146	8.791214	1.00000	10	9.00000
View King	141	8.921986	1.00000	10	10.00000
High Floor King	135	8.185440	1.00000	10	9.00000
Bayview Balcony King	106	8.886792	2.00000	10	9.00000
ADA King Tub	103	8.349849	1.00000	10	9.00000
Guest Room Double/Double	100	8.065517	1.00000	10	9.00000
King Bed	98	8.847290	3.00000	10	9.00000
1 Bedroom King Bay View	97	9.293992	3.00000	10	10.00000
City View King	91	8.791209	2.00000	10	9.00000
Golf View King	86	8.064154	1.00000	10	9.00000
Deluxe View Queen/Queen	82	7.621951	1.00000	10	8.00000
Park King	79	9.075949	1.00000	10	10.00000
View Double	79	9.240942	5.00000	10	10.00000
Ocean View King	70	8.400000	2.00000	10	9.00000

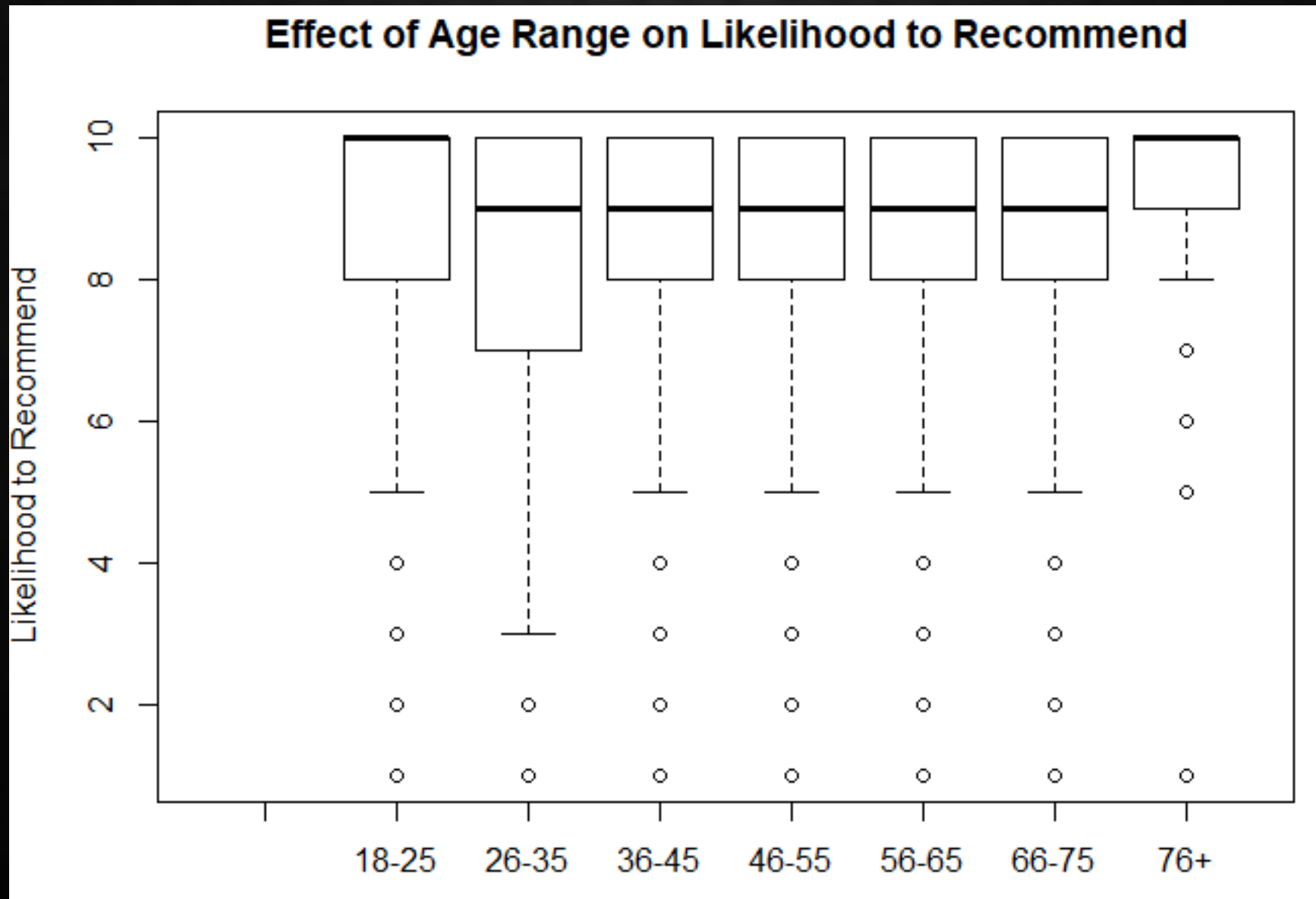
ANALYSIS OF HOTEL CONDITION AND MINI BAR



WHAT IS THE EFFECT OF NPS ON THE HOTEL BRAND AND PURPOSE OF VISIT?



WHAT IS THE EFFECT OF AGE GROUP ON THE NPS SCORE



WHAT ARE THE RECOMMENDATIONS YOU CAN PROVIDE TO IMPROVE THE NPS OF HYATT?

Hyatt Hotel Chains should focus on :

- Improving the Hotel Condition, Guest Room Condition and Customer Service as they directly impact the Net Promoter Score.
- Improve the rooms 'Guest Room King' and 'Guest Room Double,' primarily in General Hyatt brand hotels.
- Center the Hotel Promotional Activities towards the age groups of 26-35, 36-45, and 46-55 as the detractors seem to be concentrated in that group.
- To improve the Hotel Condition, you can invest on improving facilities like Mini Bar, which will thereby have an impact on the NPS

QUESTIONS

