

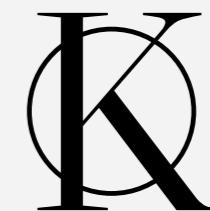


DS102 & DS104
FINAL PROJECT

PROJECT PRESENTATION

AFFENDI ABDULLAH





KRUGGR WEALTH
MANAGEMENT

INTRODUCTION

Kruggr Wealth Management engaged us to find the most lucrative location to buy a few properties in the US Market. The intended purchase of these assets is to be made into a short term rental facilities for travels from abroad for a short getaway.

1. They specifically request to find out if the company needed to be verified to start renting

2. They also insisted that they needed to use expand all their budget for tax purposes





R E S E A R C H

SUB-QUESTIONS TO
MAIN ENQUIRY



O B J E C T I V E

TO FIND THE BEST LOCATIONS FOR PROPERTY PURCHASES

Since there are a multitude of concerns that affects the main questions, we came up with a list of questions to indirectly answer our client's inquiry to make a better informed decision on their purchase

S O L U T I O N

1 | Top 10 location with highest rental listings

To find the highest valued rental property and breakdown to the neighbourhood and district

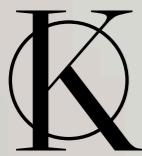
2 | Top 10 neighbourhood with the most affordable airbnb accommodations with high review

Values of such property tends to be more affordable and our client could purchase a few to maximise their budget. This also would answer their secondary question

3 | What are the popular accommodation type based on total review number?

Values of such property tends to be more affordable and our client could purchase a few to maximise their budget. This also would answer their secondary question





KRUGGR WEALTH
MANAGEMENT



OBJECTIVE

TO FIND THE BEST LOCATIONS FOR PROPERTY PURCHASES

Since there are a multitude of concerns that affects the main questions, we came up with a list of questions to indirectly answer our client's inquiry to make a better informed decision on their purchase

SOLUTION

4 | What is the highest number of property an owner/organisation can make in a neighbourhood group?

Competition on a highly lucrative rental area could be an issue. Our client should be be mindful of who they are up against with

5 | Does the year of building construction affect the rental price?

Should our client be interested in purchasing a heritage or colonial home to attract foreign tourist, they should know if there are any price difference that's involved

6 | Other than the condition of the accommodation and or host's services, does the location of the rental place plays a hand in the bad review?

Our client should also take a step further and find out if the area has historical past of criminal incidents to better protect their properties and rent

INSIGHTS

INITIAL RESEARCH INTO THE DATABASE

Before we dive into the questions, we equipped ourselves with the following fact from the datasheet



INITIAL RESEARCH INTO THE DATABASE

DATA SHEET DESCRIPTION

```
count    38012.000000
mean     748.115016
std      398.981556
min      60.000000
25%     404.000000
50%     746.000000
75%    1096.000000
max     1440.000000
```

There are a total of 38012 useable rows / locations

Mean amount is at \$748 per night

Standard Deviation between prices is \$399

Cheapest rental amount is \$60 per night

25th Percentile of Price Per Night

50th Percentile of Price Per Night

75th Percentile of Price Per Night

Maximum rental amount is \$1440 per night



INITIAL RESEARCH INTO THE DATABASE

DATA SHEET INFORMATION ON ROW TYPES

name	object
host_identity_verified	object
host_name	object
neighbourhood_group	object
neighbourhood	object
instant_bookable	object
cancellation_policy	object
room_type	object
construction_year	float64
price	float64
service_fee	float64
min_nights	float64
review_numbers	float64
last_review	object
reviews_per_month	float64
review_rate_number	float64
calculated_host_listings_count	float64
availability_365	float64
house_rules	object
dtype: object	

1 property will have one host/ company who is in charge. The host/ company could also hold multiple properties in a single time thus, host_name is a **categorical variable** here.

The 'neighbourhood_group' series comprises of the following:

- Manhattan
- Brooklyn
- Queens
- Bronx
- Staten Island

The 'neighbourhood' and 'room_type' (ie: private, shared, Entire home/apt) falls under this main category.

~id , latitude, longitude, price, minimum_nights, number_of_reviews, last_review, reviews_per_month, calculated_host_listings_count, availability_365 **are numerical variables**.

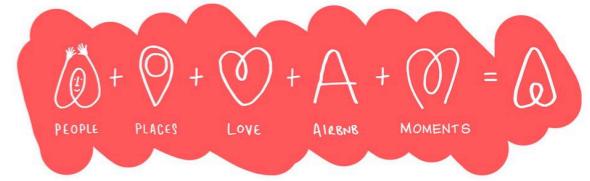


QUESTION 1

TOP 10 LOCATION WITH HIGHEST RENTAL LISTINGS

To find the highest valued rental property and breakdown to the neighbourhood and district

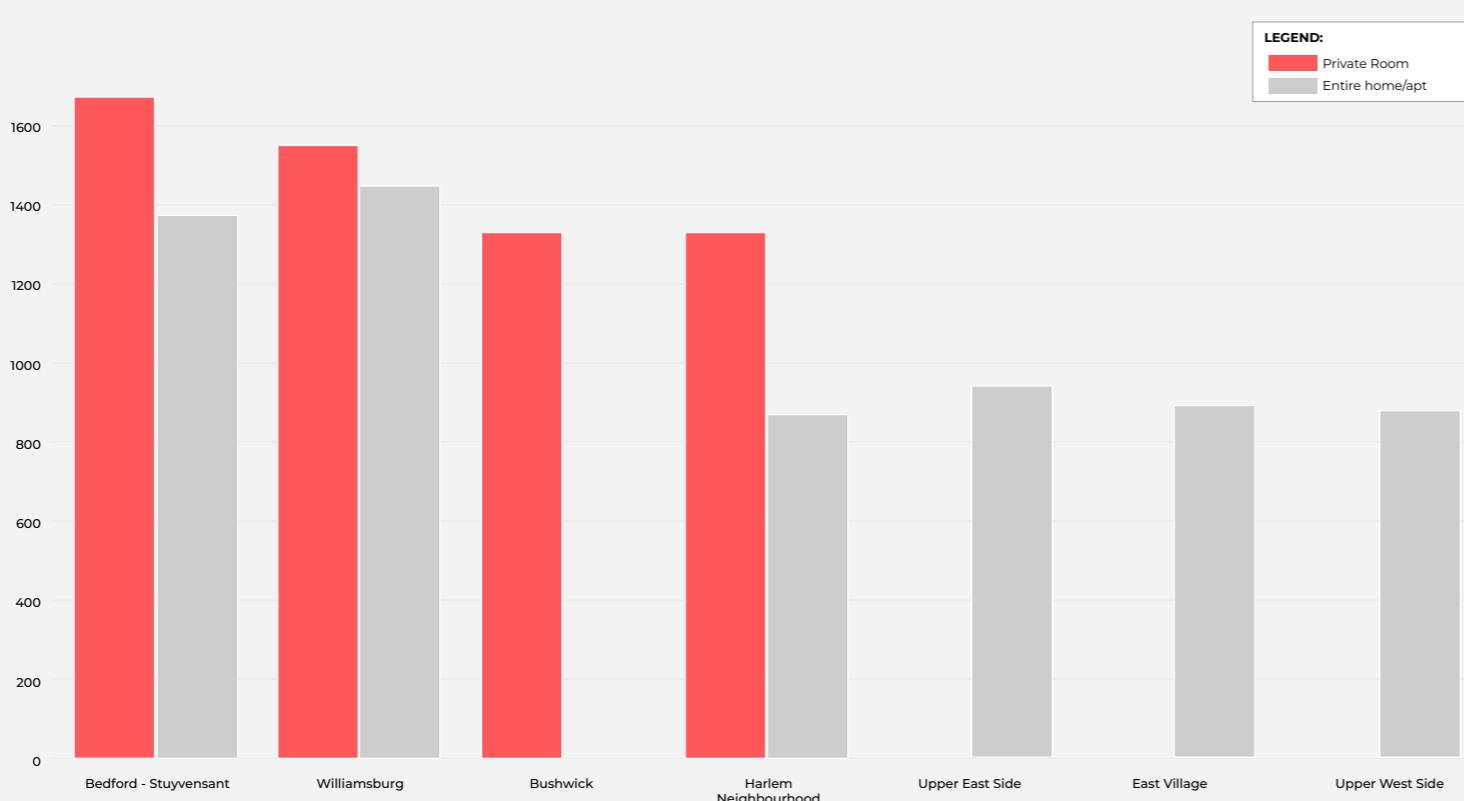




QUESTION 1

Top 10 Location with highest rental listings

	neighbourhood_group	neighbourhood	room_type	price_pernight	total_listings
1673	Brooklyn	Bedford-Stuyvesant	Private room	841.0	13
1263	Brooklyn	Bedford-Stuyvesant	Entire home/apt	1430.0	11
8001	Brooklyn	Williamsburg	Entire home/apt	647.0	11
8730	Brooklyn	Williamsburg	Private room	767.0	11
1479	Brooklyn	Bedford-Stuyvesant	Private room	494.0	10
8676	Brooklyn	Williamsburg	Private room	667.0	10
833	Brooklyn	Bedford-Stuyvesant	Entire home/apt	475.0	9
1015	Brooklyn	Bedford-Stuyvesant	Entire home/apt	882.0	9
1613	Brooklyn	Bedford-Stuyvesant	Private room	739.0	9
1666	Brooklyn	Bedford-Stuyvesant	Private room	827.0	9

**CONCLUSION**

The top highest rental listings for both **Private and Entire Home Apartment** could be located in the Bedford _Stuyvesant in Brooklyn.

Price (inclusive of service fee) starts at \$1430/night for the entire apartment and \$841 for a private room

QUESTION 2

TOP 10 NEIGHBOURHOOD WITH THE MOST AFFORDABLE AIRBNB ACCOMODATIONS WITH HIGHEST REVIEW RATE NUMBER

Values of such property tends to be more affordable and our client could purchase a few to maximise their budget. This also would answer their secondary question



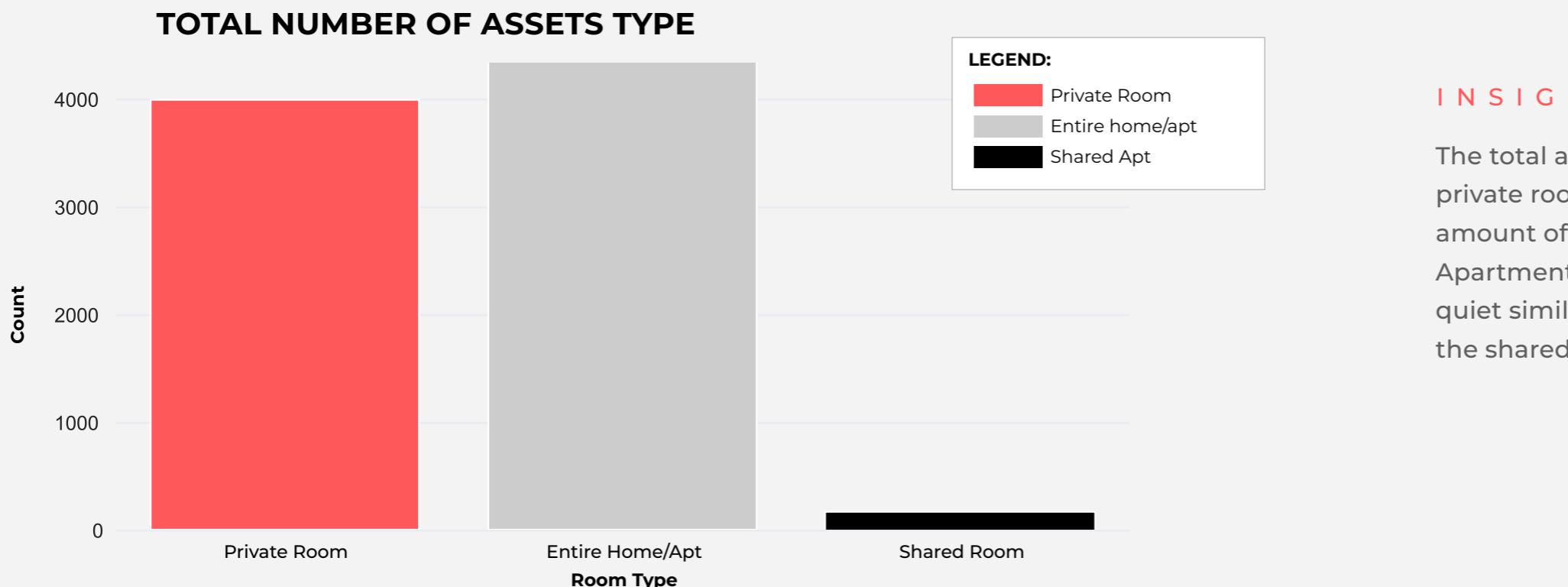
QUESTION 2

Top 10 neighbourhood with the most affordable airbnb accommodations with high review

	room_type	neighbourhood_group	neighbourhood	price_pernight	review_numbers	review_rate_number
15239	Private room	Brooklyn	Crown Heights	60.0	34.0	5.0
21763	Entire home/apt	Manhattan	Harlem	60.0	2.0	5.0
28928	Private room	Queens	Flushing	61.0	4.0	5.0
27100	Entire home/apt	Brooklyn	Greenpoint	61.0	20.0	5.0
12130	Entire home/apt	Brooklyn	Greenpoint	61.0	20.0	5.0
14077	Private room	Queens	Flushing	61.0	4.0	5.0
6858	Entire home/apt	Brooklyn	Prospect Heights	61.0	12.0	5.0
23177	Entire home/apt	Manhattan	Hell's Kitchen	62.0	8.0	5.0
15117	Entire home/apt	Manhattan	East Village	62.0	26.0	5.0
5404	Entire home/apt	Brooklyn	Carroll Gardens	62.0	96.0	5.0

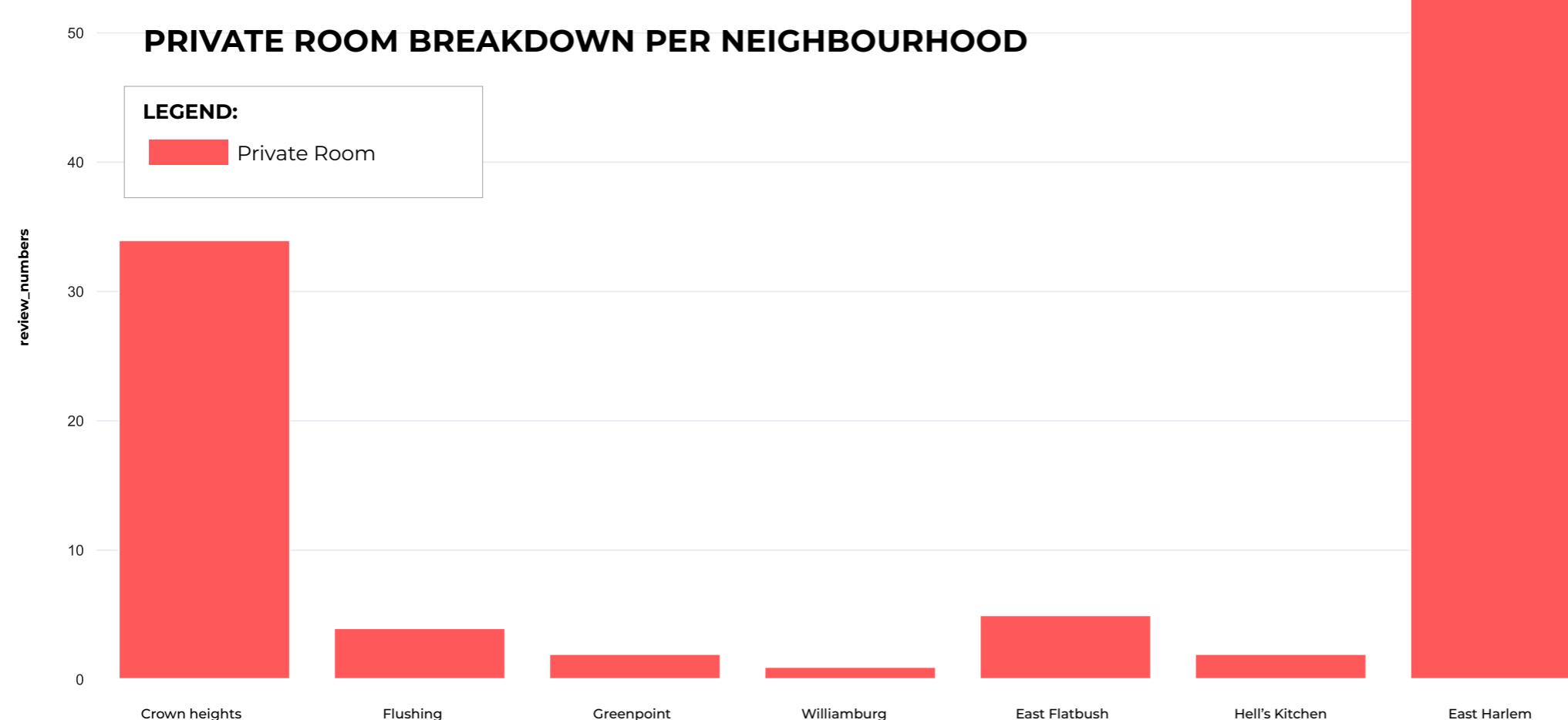
CONCLUSION

At a common 5 star rating with the most number of reviews and a affordable rental price of \$60 per night, the Crown Heights, Brooklyn takes the lead.



INSIGHTS

The total amount of private rooms vs the total amount of Entire Apartment looks to be quiet similar as oppose to the shared room options



CONCLUSION

Client could consider getting a private room as it is significantly cheaper in purchase the an entire apartment and provides a peace of mind for safety as oppose to the shared room option

QUESTION 3

WHAT ARE THE
POPULAR
ACCOMODATION
TYPE BASED ON
THE PAST TOTAL
REVIEW NUMBER?

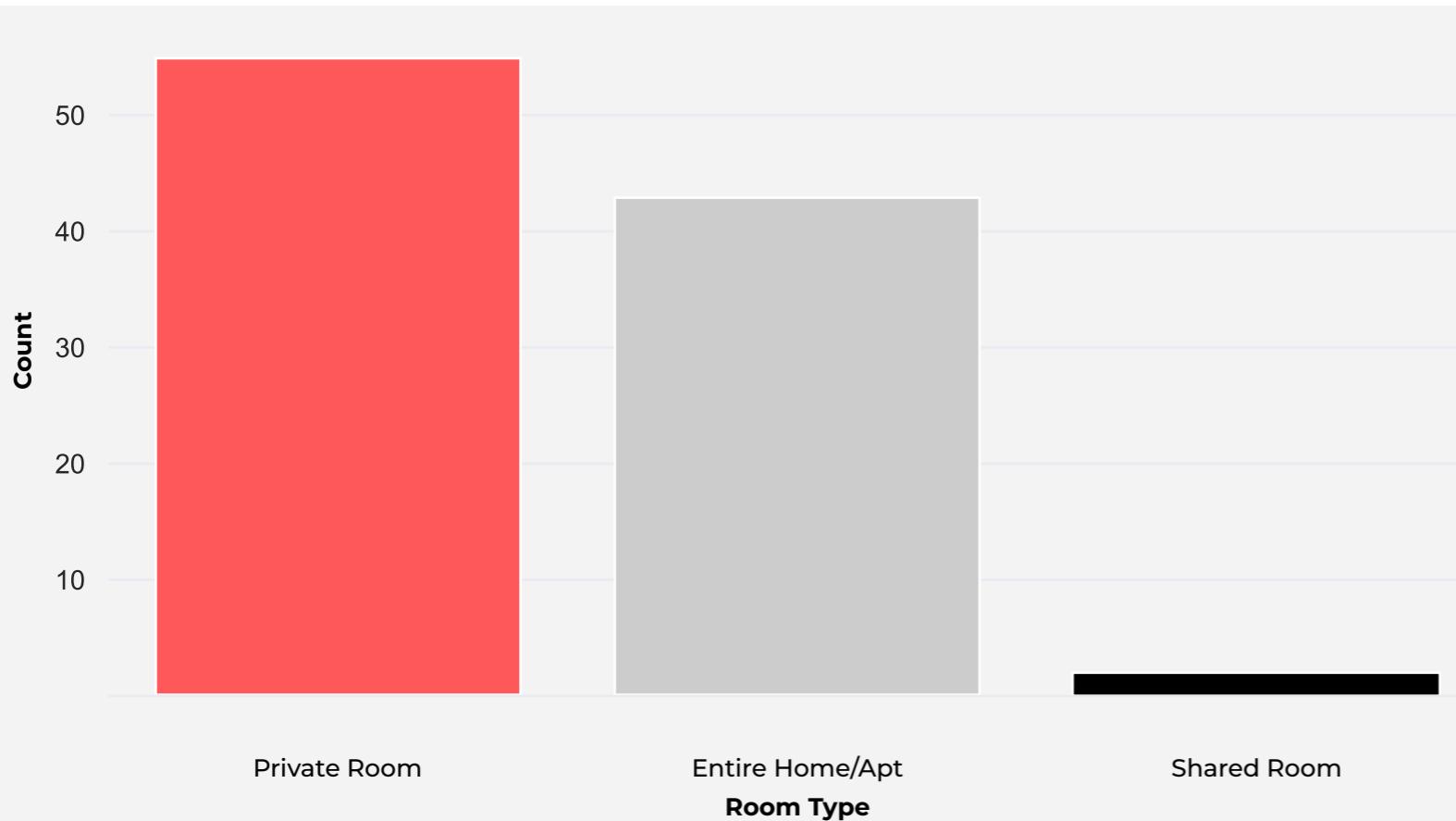
Values of such property tends to be more affordable and our client could purchase a few to maximise their budget. This also would answer their secondary question



QUESTION 3

What are the popular accommodation type based on past total review number?

	room_type	neighbourhood_group	neighbourhood	price_pernight	review_numbers	review_rate_number
7124	Private room	Queens	Jamaica	354.0	576.0	5.0
539	Private room	Queens	Flushing	1103.0	474.0	5.0
5067	Private room	Queens	East Elmhurst	475.0	448.0	5.0
1075	Entire home/apt	Manhattan	Tribeca	84.0	447.0	5.0
101	Entire home/apt	Queens	Astoria	558.0	414.0	5.0
5373	Private room	Queens	Richmond Hill	89.0	408.0	5.0
689	Entire home/apt	Brooklyn	Williamsburg	986.0	404.0	5.0
67	Entire home/apt	Brooklyn	South Slope	1246.0	398.0	5.0
4576	Private room	Brooklyn	Bedford-Stuyvesant	1178.0	397.0	5.0
7545	Private room	Queens	Springfield Gardens	1373.0	375.0	5.0



CONCLUSION

Past total reviews have shown that private rooms is still the favourite room type which typically houses 1-2 person travellers

QUESTION 4

WHAT IS THE HIGHEST NUMBER OF PROPERTY AN OWNER/ ORGANISATION CAN MAKE IN A NEIGHBOURHOOD GROUP?

Competition on a highly lucrative rental area could be an issue. Our client should be be mindful of who they are up against with



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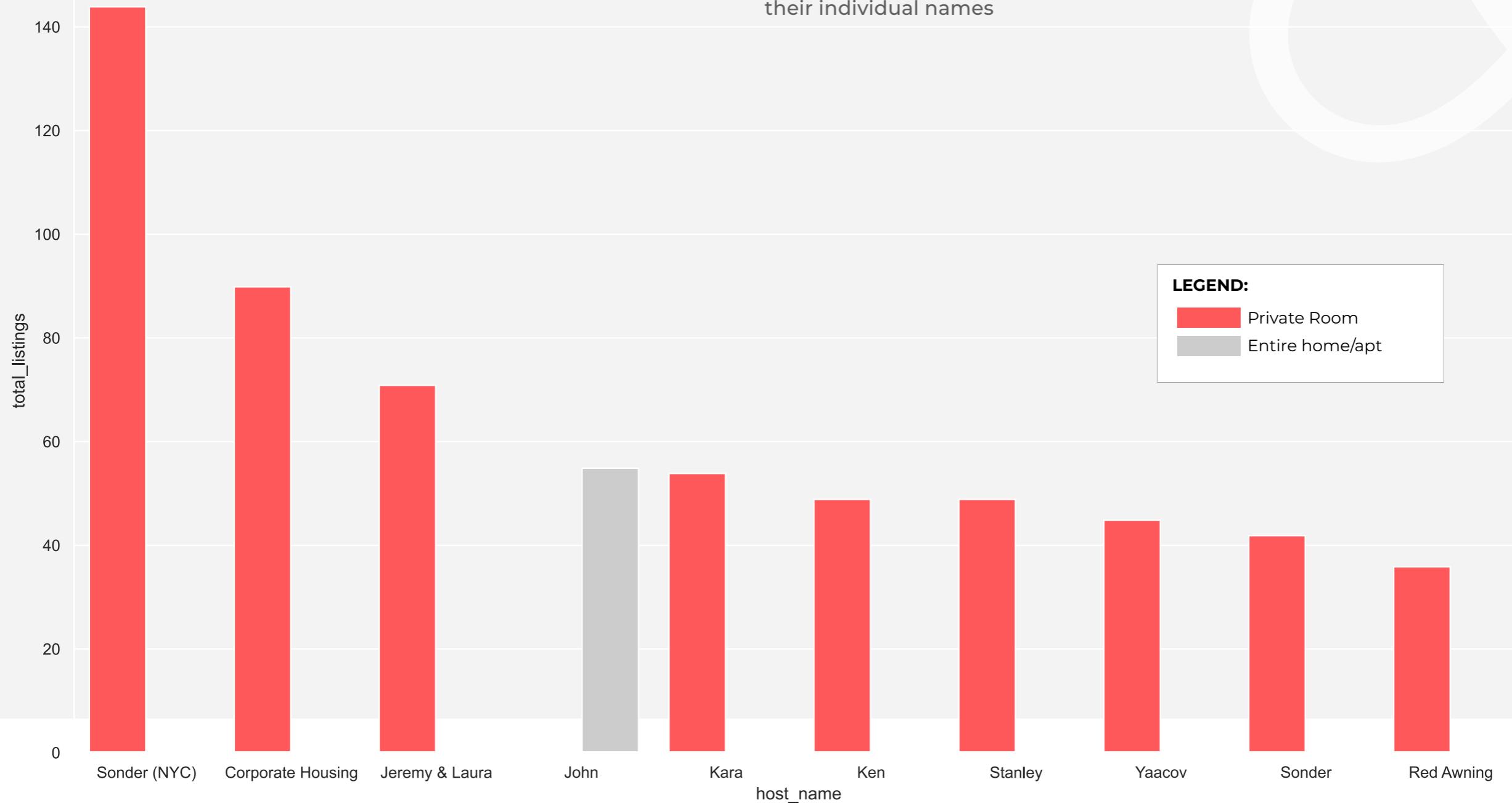
QUESTION 3

	host_name	neighbourhood_group	room_type	total_listings
30	Sonder (NYC)	Manhattan	Entire home/apt	144
5	Corporate Housing	Manhattan	Entire home/apt	90
11	Jeremy & Laura	Manhattan	Entire home/apt	71
14	John	Manhattan	Private room	55
17	Kara	Manhattan	Entire home/apt	54
21	Ken	Manhattan	Entire home/apt	49
32	Stanley	Manhattan	Entire home/apt	49
36	Yaacov	Manhattan	Entire home/apt	45
29	Sonder	Manhattan	Entire home/apt	42
27	Red Awning	Manhattan	Entire home/apt	36

CONCLUSION

Past total reviews have shown that private rooms is still the favourite room type which typically houses 1-2 person travellers

TOTAL NUMBER OF COMPANY COMPETITORS VS PROPERTIES OWNED



CONCLUSION

Majority of the owners owns private rooms for rental out. We could also figure out the different company that's with in the district by googling their individual names

QUESTION 5

DOES THE YEAR
OF BUILDING
CONSTRUCTION
AFFECT THE
PRICE?

Should our client be interested in purchasing a heritage or colonial home to attract foreign tourist, they should know if there are any price difference that's involved



2003

	room_type	construction_year	price_pernight
182	Private room	2003.0	1385.0
20	Private room	2003.0	1360.0
315	Private room	2003.0	1180.0
104	Private room	2003.0	538.0
227	Private room	2003.0	528.0
138	Private room	2003.0	304.0

2022

	room_type	construction_year	price_pernight
173	Private room	2022.0	68.0
174	Private room	2022.0	71.0
295	Private room	2022.0	917.0
472	Private room	2022.0	120.0

CONCLUSION

Yes there is a major price difference between the properties that was built in the late 2003 and 2022. We could safely conclude that probably that was build could also impact the price difference

QUESTION 6

OTHER THAN THE CONDITION OF THE ACCOMODATION AND OR HOST'S SERVICES, DOES THE LOCATION OF THE RENTAL PLACE PLAYS A HAND IN THE BAD REVIEW?

Our client should also take a step further and find out if the area has historical past of criminal incidents to better protect their properties and rent



ALL LISTINGS WITH RATING OF 1

	neighbourhood	total_listings
0	Crown Heights	1
1	Williamsburg	1
2	East Village	1
3	Harlem	2
4	Hell's Kitchen	1
5	Midtown	1
6	West Village	1
7	Astoria	1
8	Sunnyside	1

CONCLUSION

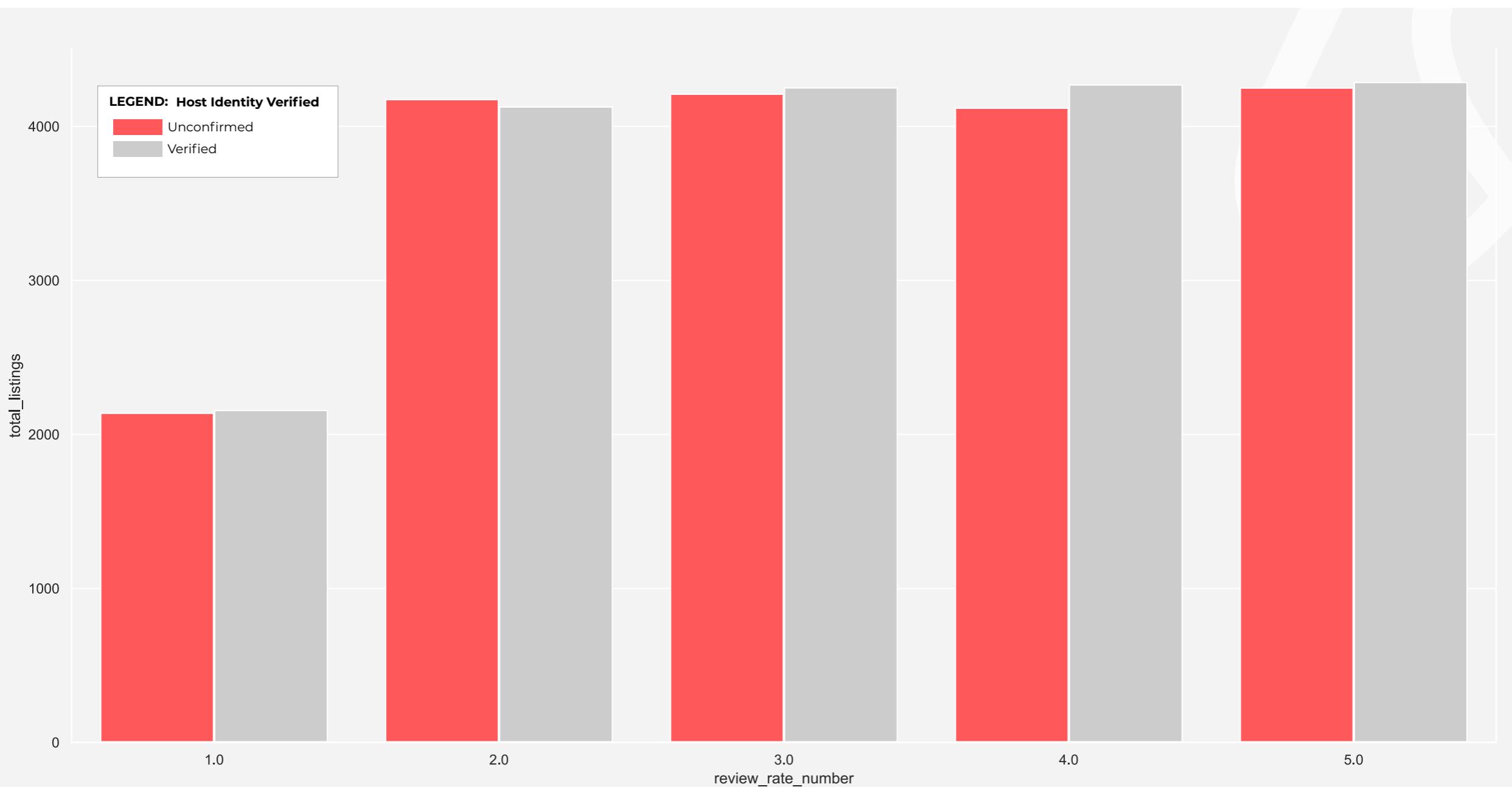
No. Most of the bad reviews are from a 1 off location

QUESTION 7

DOES THE BEING
VERIFIED MATTER
FROM THE
PERSPECTIVE OF THE
NUMBER OF REVIEWS
FROM CUSTOMERS

Our client should also take a step further and find out if the area has historical past of criminal incidents to better protect their properties and rent





CONCLUSION

The number of verified owner vs the unverified owners seems to only have a slight difference. We could say that the renter does not mind if the host/hostess is not verified

SUMMARY IN CONCLUSION

We suggest that Kruggr purchase a number of Entire home properties as well as private rooms in the Brooklyn area to maximise their per annual income. They should also look into buying some assets in the Manhattan area since many of the corporate rental competitor are there and the area is the business district park.

They could also see if the building / apartment they are purchasing have any historically value that they could place a story on thus increasing its value.

They do not have to worry about the surrounding area that could eventually deteriorate the assets value



S U M M A R Y

THANK YOU

https://github.com/AffendiAbdullah/airbnb_data_research

