

# **PPT-1**

# **Insights from the Airbnb, NYC**

# **Analysis**

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# Objective

- ▶ Improve business strategies and estimate customer preferences to revive the business and generate more revenue in the post-COVID period.
- ▶ Get a better understanding of critical pre-COVID period insights with respect to various parameters.
- ▶ Understand customer preference and customer experience in Airbnb listings.

# Background

- ▶ For the past few months, Airbnb has seen a major decline in revenue as a result of COVID-19.
- ▶ Now that the restrictions have started lifting and people have started to travel more, Airbnb wants to make sure that it is fully prepared for this change and want to make a bigger revenue in the upcoming days.
- ▶ So, analysis has been done on a dataset consisting of various Airbnb listings in New York.

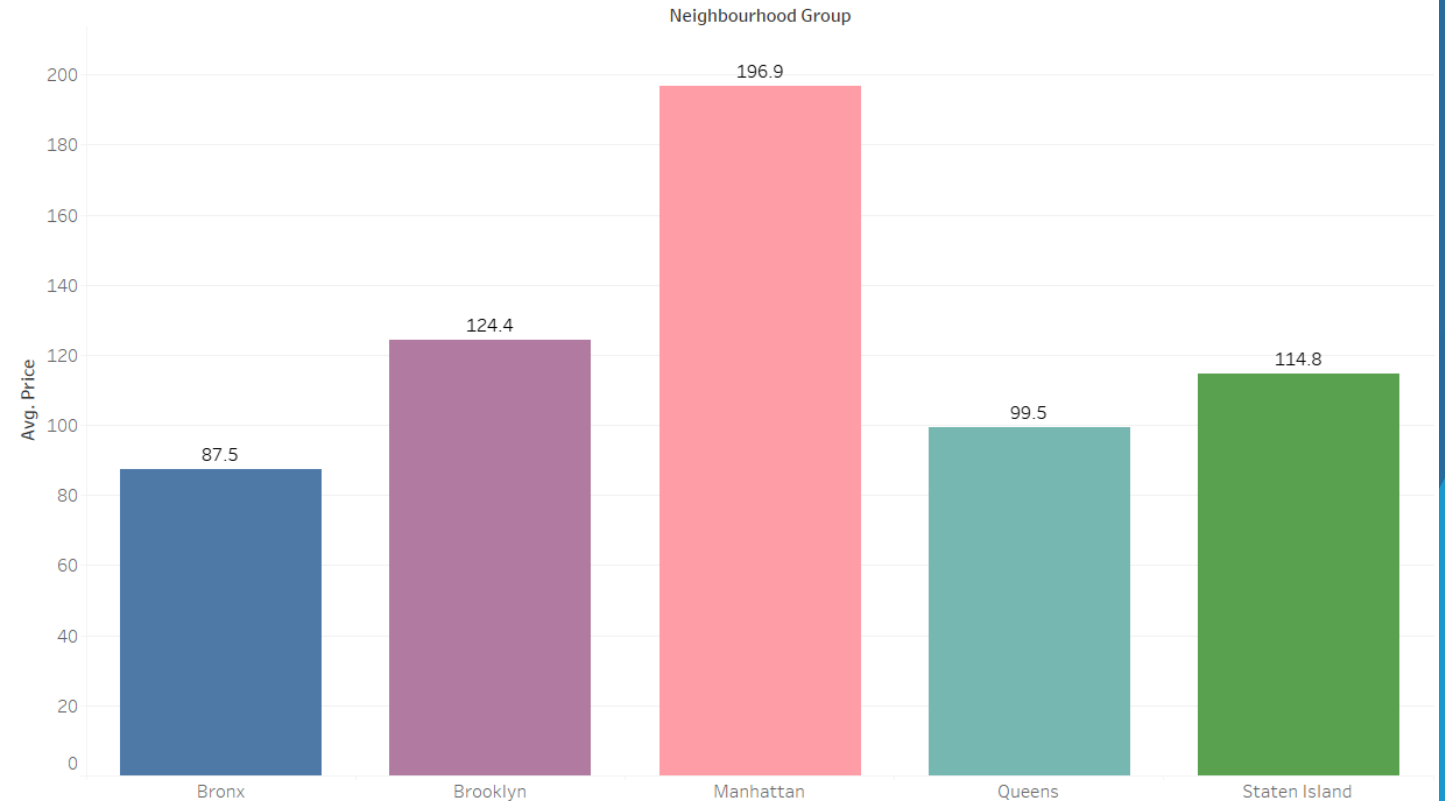
# Data Preparation

- ▶ We perform the Data Preparation & Data Cleaning process on Jupyter Notebook.
- ▶ Cleaned the data to remove any missing values and duplicates.
- ▶ Replace the missing values with mode.

## Average Prices based on Neighbourhood

- Manhattan is the most expensive Neighbourhood with highest average price \$196.9.
- Brooklyn has the second highest average price \$124.4 followed by Staten Island in the third position with average price \$114.8.
- Average price in the neighbourhood group Bronx is cheapest.

Average Price based on Neighbourhood

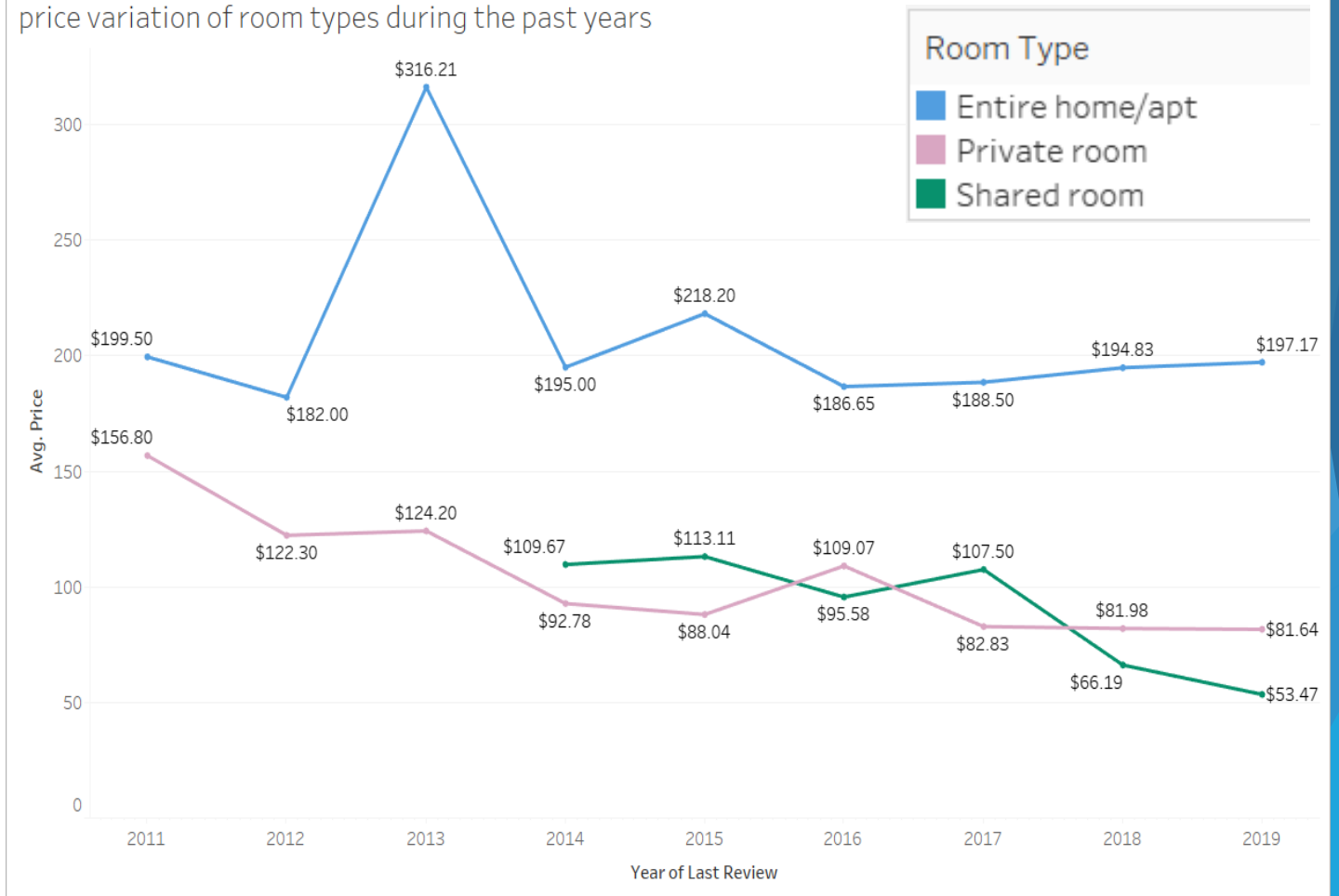


## Variation in Price during the past few years

Given Below are the points for variation in Average price according to Room Types

1. For Entire home/apt, there were slighter variations in average prices except in the year 2013.
2. For Private Rooms, the variation in the average price is going slightly downwards.
3. For Shared Rooms, the variation in average price has been going majorly downwards over the years.

price variation of room types during the past years



## Top 10 Hosts as per total earnings

- Here we can see host Henry with id 836168 has the highest earnings of \$368,000.
- Host Sonder(NYC) is in the second position as per total earnings followed by Yasu & Akiko in the third position.
- Other than these Host Jon, John, Ilo And Richard, The Box House Hotel, S, Jessica and West village are falling under top 10 hosts.



We assumed that those who stayed in the listings gave the number of reviews and based on that we can approximate our quantity or earnings. Therefore, Earnings = Price\*Number of Reviews.

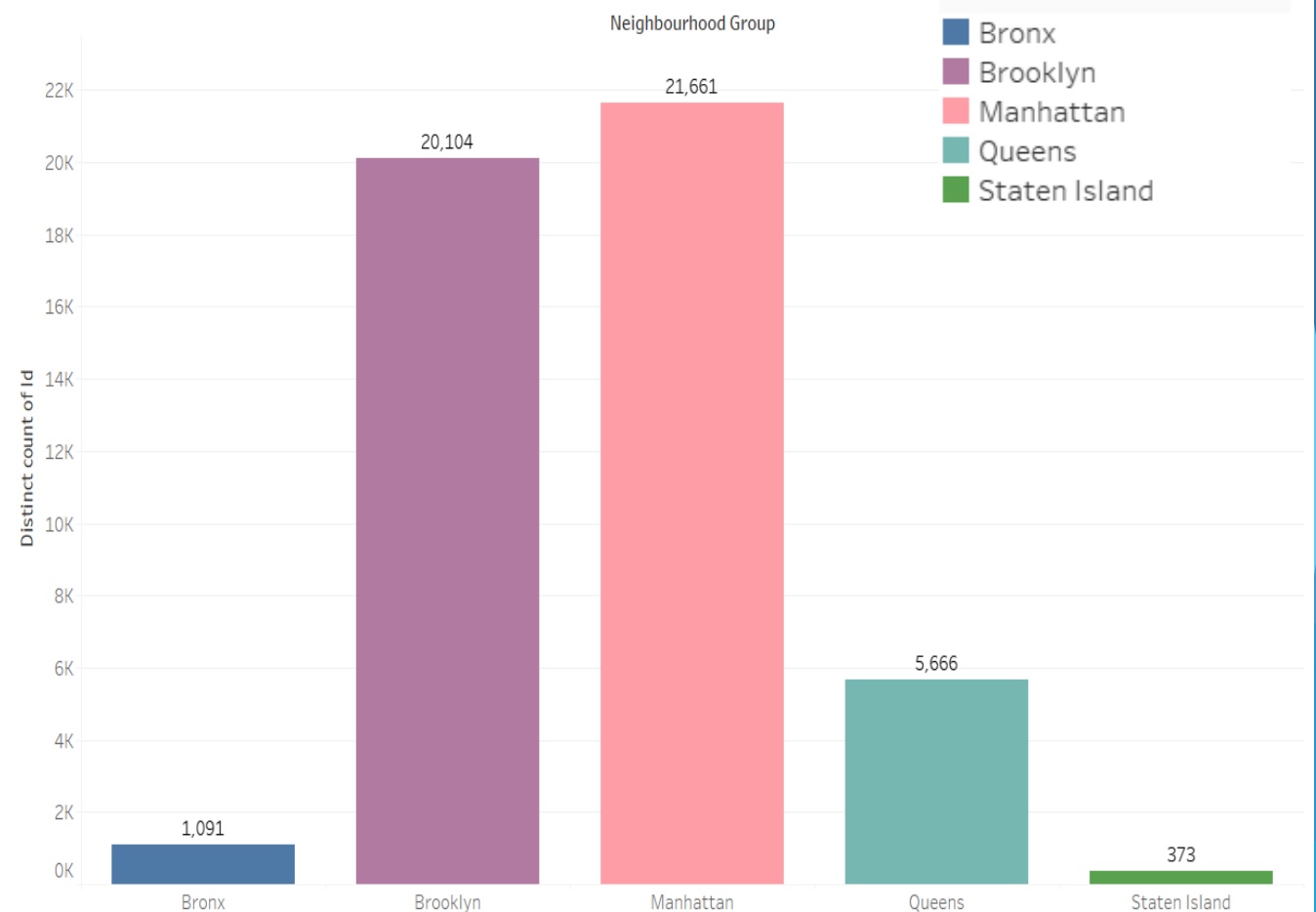
Top 10 host

836168 Henry \$368,000.00	273174 Jon \$284,025.00	42619297 John \$234,765.00	152228055 Ilo And Richard \$206,310.00
219517861 Sonder (NYC) \$364,476.00			
35524316 Yasu & Akiko \$363,555.00	417504 The Box House Hotel \$195,705.00	1177497 Jessica \$186,508.00	605463 West Village \$178,400.00
	3740730 S \$193,387.00		

## Number of Listings in the Neighbourhood Group

- Airbnb has good presence in Manhattan, Brooklyn and Queens.
- Manhattan has the most number of listings with a count of 21,661.
- Brooklyn is on the second position with a count of 20,104.
- Then comes Queens with 5,666, Bronx with 1,091 and Staten Island with 373 listings.

Number of Listings in the Neighborhood Group

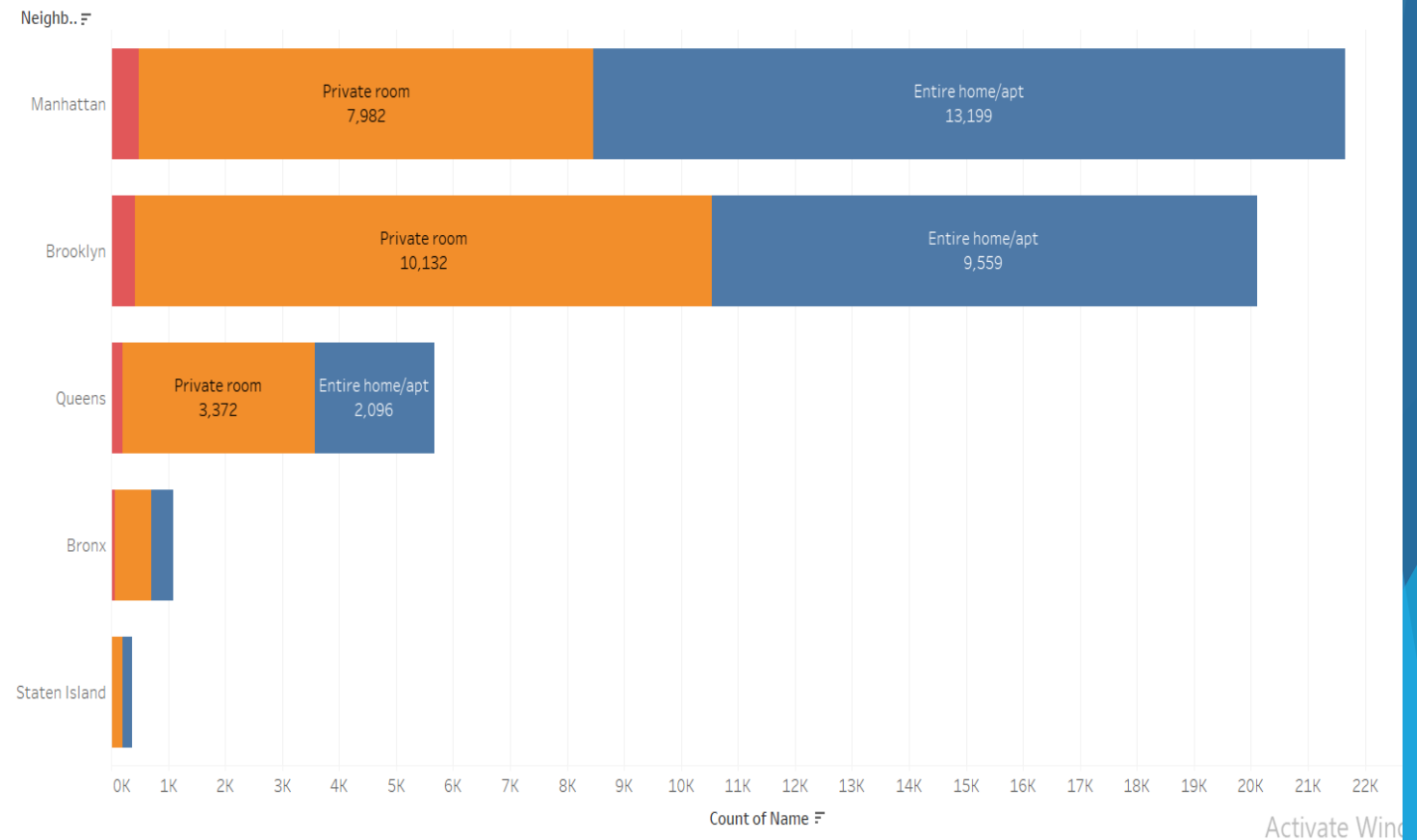




# Total Bookings in Neighbourhood by room type

- Customers mostly prefers entire home or private rooms.
- Manhattan has the most number of bookings in Entire home/apt with 13199 total bookings.
- Brooklyn has the most number of bookings in Private room with 10132 total bookings.
- In Manhattan and Brooklyn bookings of Entire home/apt is much higher than the other neighbourhood.
- New acquisitions can be explored to acquire 'private rooms' in Manhattan and Brooklyn and Airbnb can concentrate on shared room with targeted discounts to increase booking.

Total Bookings by Neighbourhood group & Room type



# Conclusion & Recommendation

- New acquisitions can be explored to acquire 'private rooms' in Manhattan and Brooklyn and Airbnb can concentrate on shared room with targeted discounts to increase booking.
- Brooklyn has an average price of \$124. As there are already many listings available in Manhattan, Brooklyn can be considered for expansion.
- Increasing acquisitions and new properties in coastal regions can increase customer bookings.
- These insights will be helpful for Lead Data Analyst and Data Analysis Manager to make strong decisions that will help in improving the business revenue.

# APPENDIX

- Here we used Tableau to make an analysis and draw various insights from the data.
- The detailed methodology document are attached below
  - I. [Airbnb case study Methodology.pdf](#)