airbnb, New York Case Study

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Contents

Introduction

Airbnb is a global online marketplace that connects travelers with hosts offering unique accommodations, ranging from cozy apartments and luxury villas to treehouses and boutique stays. Founded in 2008, Airbnb revolutionized the travel industry by enabling individuals to rent out their properties or spare rooms to guests, providing an alternative to traditional hotels.

The platform operates in over 220 countries, offering flexible booking options, personalized experiences, and cost-effective stays. With a user-friendly interface, secure payment system, and a robust review system, Airbnb ensures trust and transparency between hosts and guests.

Problem Statement

For the past few months, Airbnb has seen a major decline in revenue. 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.

Airbnb wants to focus on the listings in various cities in the state of New York.
So we have analyzed the data of various Airbnb listings in New York.

New York City is the most diverse and populated city in the United States. The city is made up of 5 burrows: Manhattan, Brooklyn, Queens, the Bronx and Staten Island, all of which were "grouped" together into a single city.

Objective

To prepare for the next best steps that Airbnb needs to take as a business,
The presentation will focus on the following points:

- Understand customer preferences and customer experience in airbnb listings
- Understand the pricing relation to various parameters
- Recommendations to improve quality of new acquisitions and customer experience

Key Insights

To understand some important insights we have explored the following options:

- Customer preference of room type
- Property demand based on minimum night bookings
- Understanding Price variation w.r.t Room Type & Neighbourhood
- Top Hosts with maximum number of listings
- Neighbourhoods with Top reviewed properties
- Listing availability in Neighbourhoods

Sheet 16
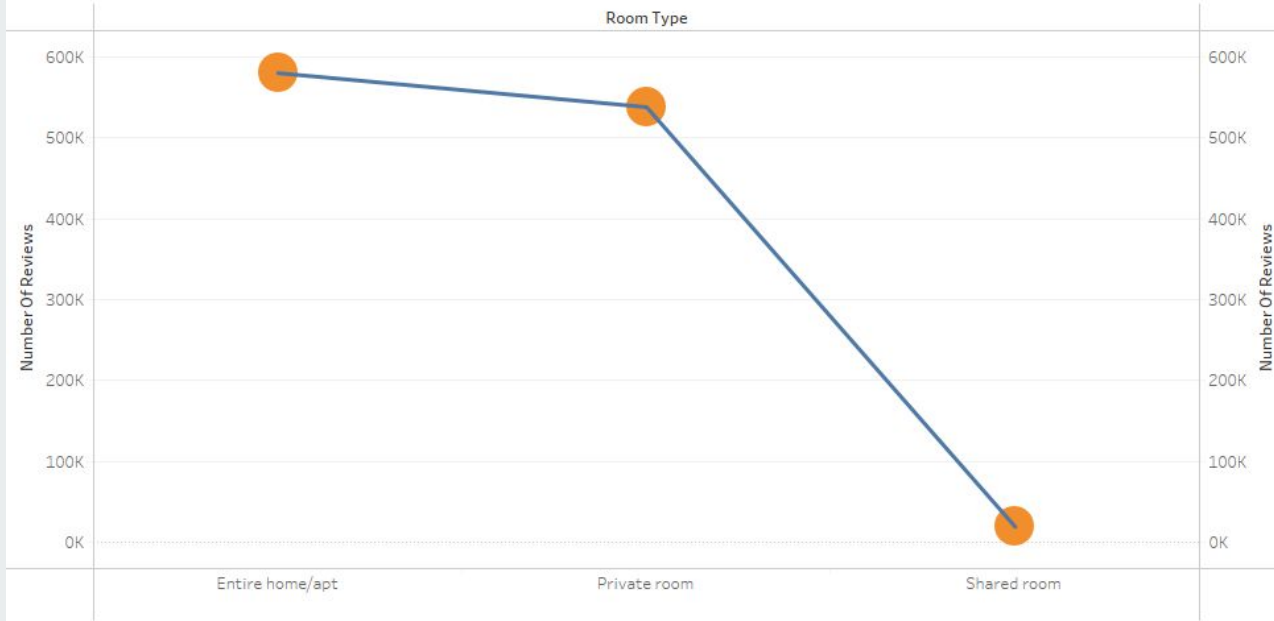
Room Type

The trends of sum of Number Of Reviews and sum of Number Of Reviews for Room Type.

- Three different types of rooms - Entire home/Apartment, Private room & shared room are available in the areas

- Major chunk of listings are of Entire home/Apartment

- We can safely infer that customers do not prefer shared rooms

- Airbnb can promote shared room by providing discounts or eradicate the type entirely to save cost

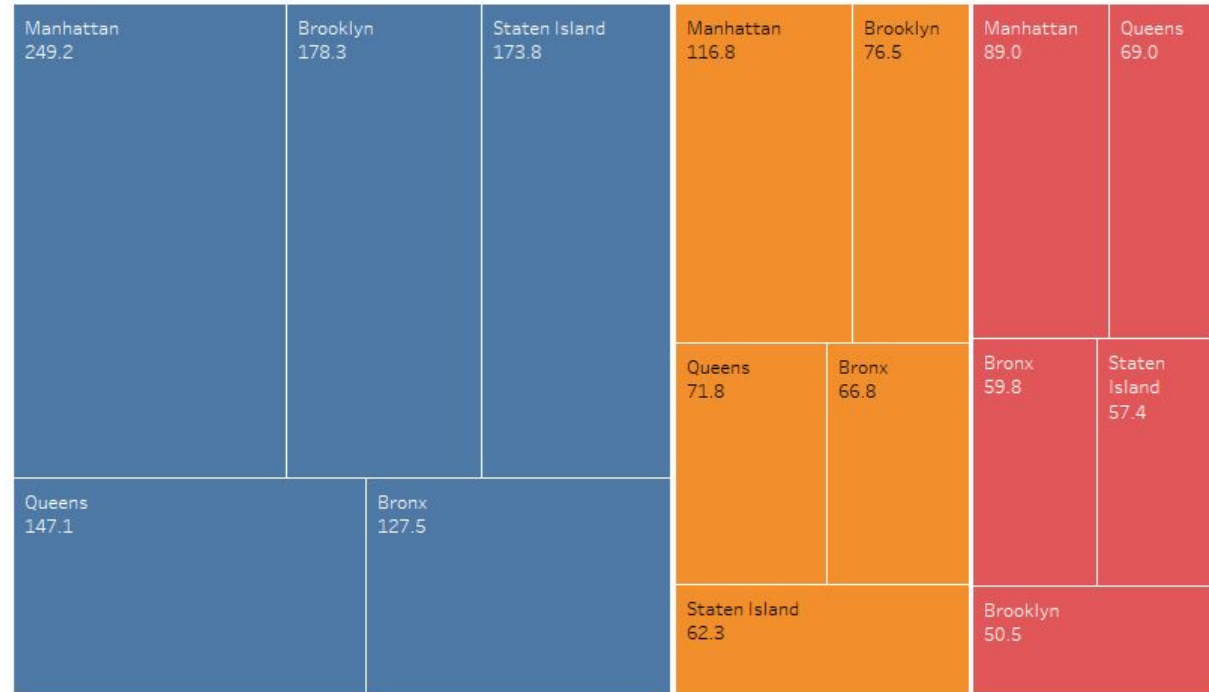Location wise Customer booking w.r.t Minimum Nights
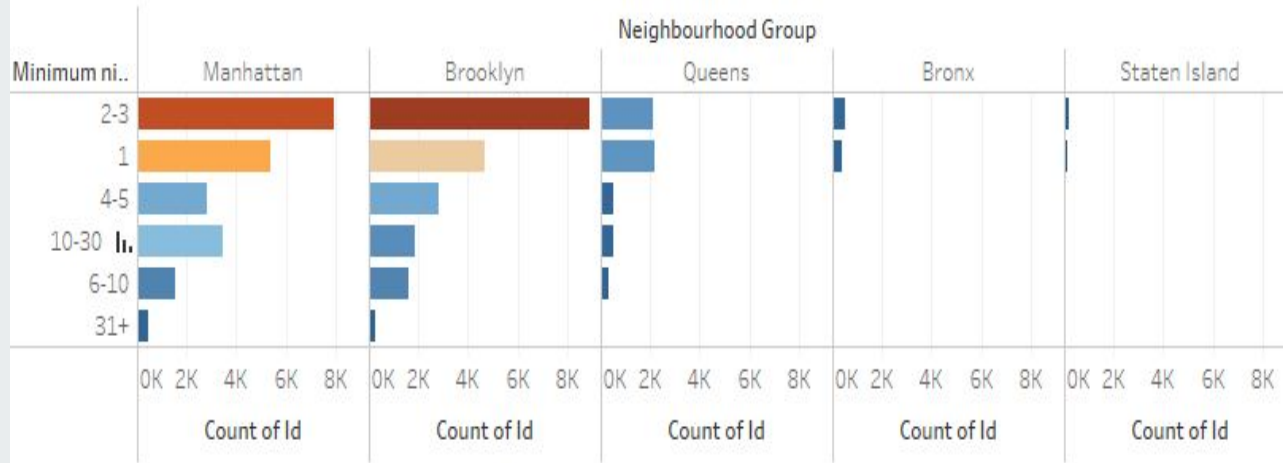
Count of Id for each Minimum nights Grouped broken down by Neighbourhood Group. Color shows count of Id.
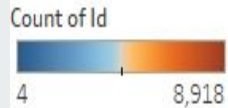
- Booking Preference by the customer is the highest for 2-3 nights

- Bookings for 1 night also has high customer preference as most of the customer on business trips prefer to book the rooms for just 1 night

- Bookings drop drastically for more than 30 days as very few customer who take Entire home/Apartment on rent

- Airbnb has good presence in Manhattan, & Brooklyn followed by Queens.

- Manhattan appears to have the highest average price. The 'Entire home/apt' room type in Manhattan is the most expensive, priced at $250, much higher than the overall average.

- 'Shared Room' type is the cheapest in Brooklyn.

- 'Private rooms' of Manhattan & Brooklyn and 'Entire homes' in Bronx and Queens Fall in the favourable avg price range ($40-$190)

Distribution of Avg Price per Location

|		
Manhattan 249.2	Brooklyn 178.3	Staten Island 173.8
	Manhattan 116.8	Brooklyn 76.5	Manhattan 89.0	Queens 69.0
	Queens 71.8	Bronx 66.8	Bronx 59.8	Staten Island 57.4
Queens 147.1	Bronx 127.5		
	Staten Island 62.3	Brooklyn 50.5	

Neighbourhood Group and average of Price. Color shows details about Room Type. Size shows average of Price. The marks are labeled by Neighbourhood Group and average of Price.
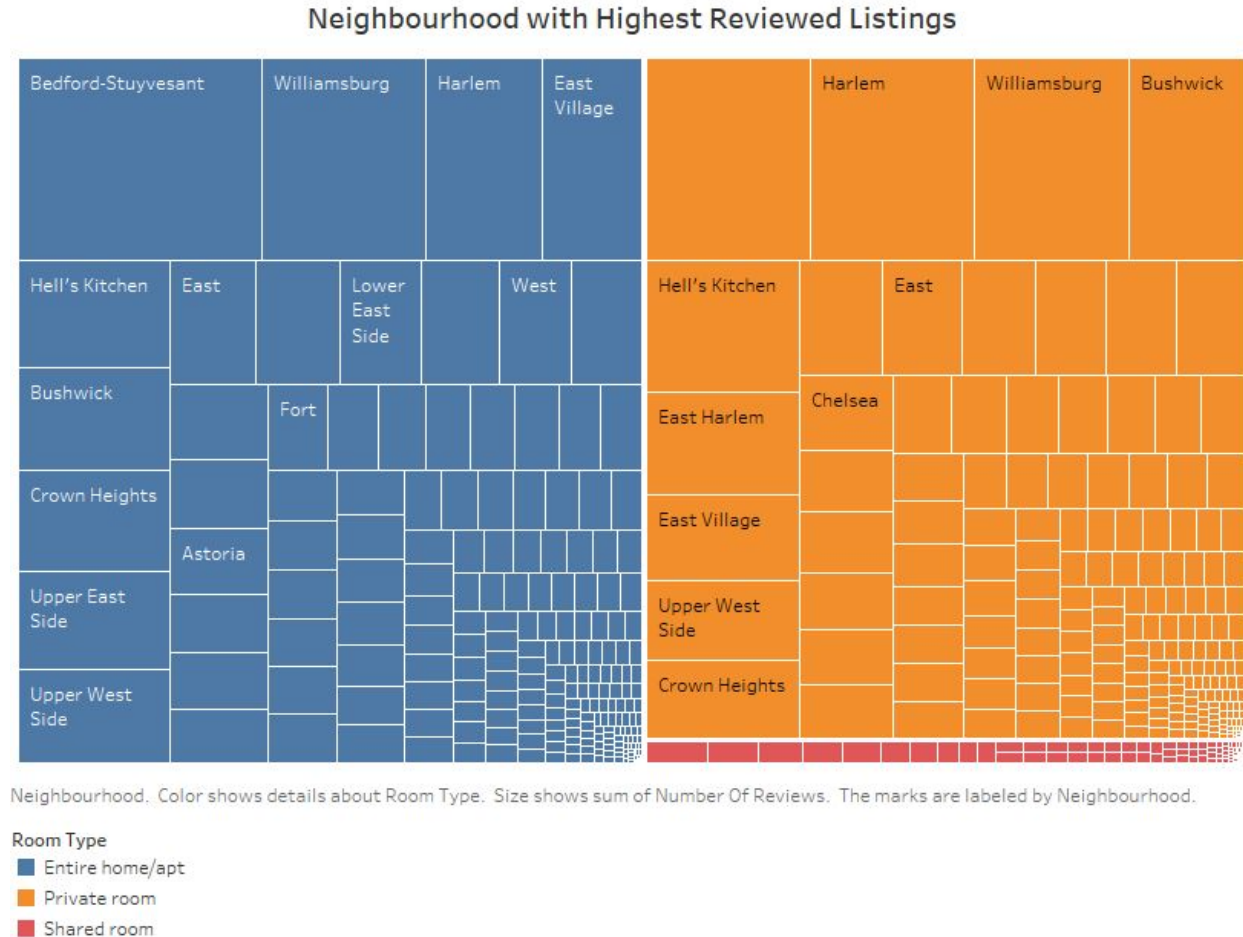
Room Type
- Entire home/apt
- Private room
- Shared room

Tops Hosts with the most Listings

Host Name. Color shows details about Host Name. Size shows sum of Calculated Host Listings Count. The marks are labeled by Host Name.
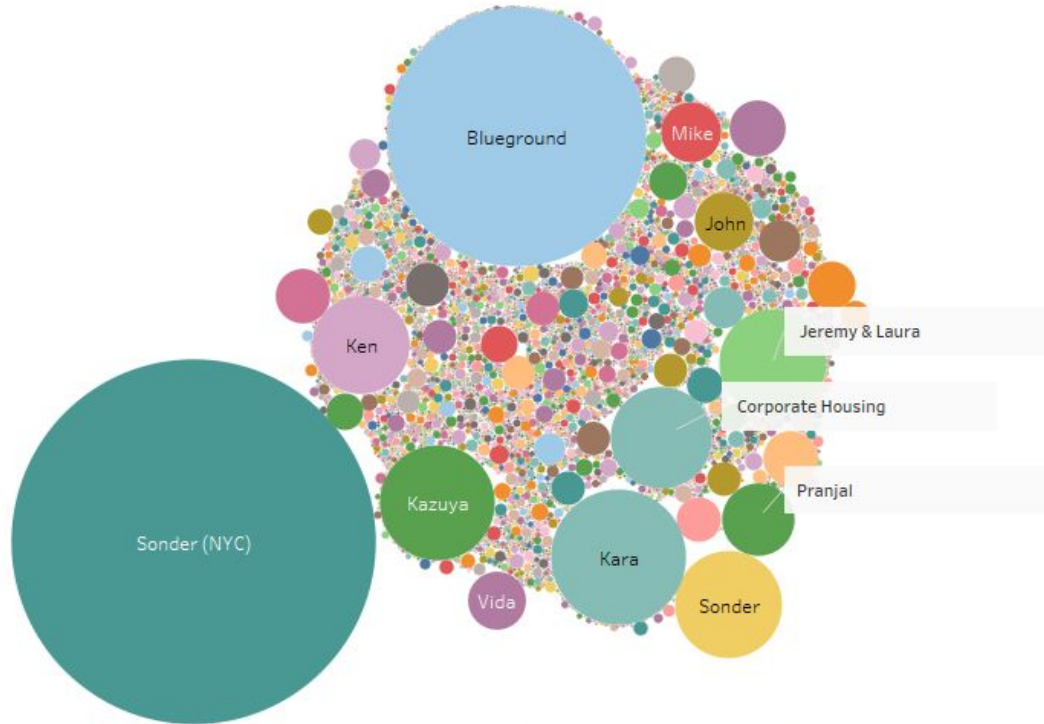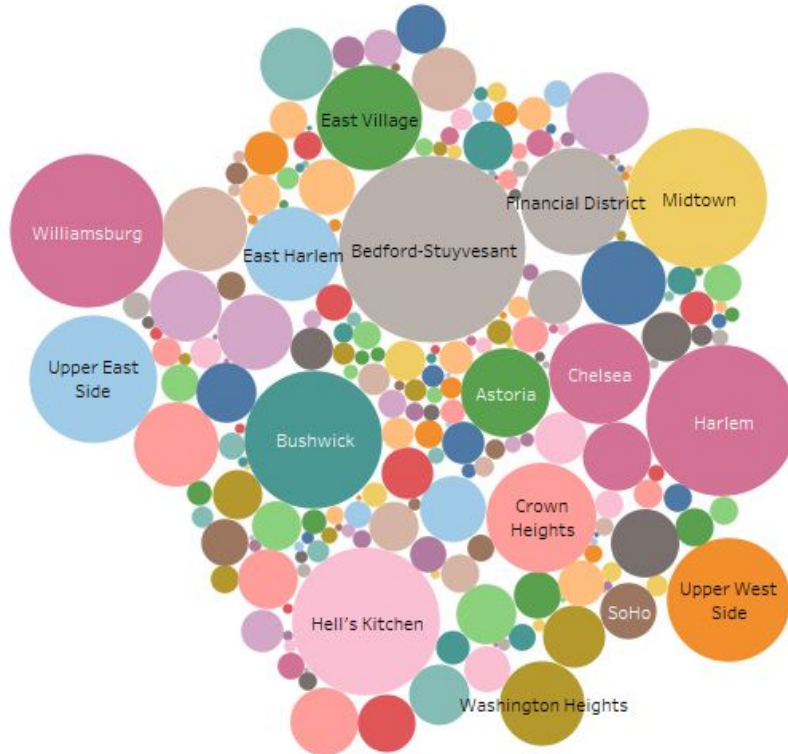
- Hosts having the highest number of listings are majorly in Manhattan areas

- This is because Manhattan has the highest influx of tourists and financial enthusiasts visiting the city all year round

- Sonder(NYC), Blueground and Kara qualifies as the top hosts having the most number of listings respectively

- Airbnb can approach these hosts to acquire listings in other areas like Queens as they are more experienced in the market

- Neighbourhoods with highest number of reviews are Bedford-stuyvesant, Williamsburg and Harlem

- Number of reviews are the highest for Entire Home/apt, followed by Private rooms

- Airbnb can focus on increasing number of listings in for private rooms

- Airbnb can also focus on improving customer satisfaction in the listings in other areas with low reviews

Neighbourhood with Highest Reviewed Listings

Neighbourhood. Color shows details about Room Type. Size shows sum of Number Of Reviews. The marks are labeled by Neighbourhood.

Room Type
- Entire home/apt
- Private room
- Shared room

Neighbourhoods with most listing availability

Neighbourhood. Color shows details about Neighbourhood. Size shows sum of Availability 365. The marks are labeled by Neighbourhood.

- Despite having the highest reviews and bookings, Areas such as Bedford-Stuyvesant, Harlem, Williamsburg & Hell's kitchen offer maximum day availability

- Airbnb can target the areas with high availability to attract more customer bookings

- Airbnb can acquire more properties in areas with low availability to increase customer base

Recommendation

- Promotion of shared rooms with targeted discounts or eradication of the type entirely to save cost
- Discounts for bookings of more than 20 nights can increase business as customers can rent out apartments on monthly basis
- Price range can be reduced for the areas in Manhattan as it generates the most business and is preferred by most customers
- Approach hosts with maximum listings to acquire listings in other areas like Queens as they are more experienced in the market

- Focus on increasing number of listings in for private rooms

- Focus on improving customer satisfaction in the listings in areas with low reviews

- Target the areas with high availability to attract more customer bookings

- Acquire more properties in areas with low availability to increase customer base

Appendix

About the data

The analysis has been done on a dataset provided by Airbnb which contains details of New York city listings in certain neighbourhoods for the years through 2011 to 2019. However, The data mostly represents the records from the year 2019.

The data has some null values which did not affect the analysis and hence had not been treated.

Methodology

- The analysis and visualizations were done using Tableau considering various parameters.
- The analysis was done keeping in mind the business aspects of the project.
- The important factors taken into consideration were
  - Customer bookings and preference
  - Customer experience w.r.t Neighbourhood, Room type & minimum nights
  - Price variations
  - Customer Reviews
  - Listing Availability

Recommendations have been made with respect to these parameters to impact the business positively.

Assumptions

As we are not aware about the nature of reviews, we have assumed them as positive and that the properties which received higher number of reviews have a better customer liking and preference.

Minimum nights could be interpreted as
- Minimum nights a listing offers the booking to be
- Minimum nights the customers prefer to book

We are considering the second situation in order to understand customer preference.