

A Data Analysis Presentation for Data Analysis Managers and Lead Data Analysts on Insights to Optimize Airbnb Revenue

By

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Agenda

- Objective
- Background
- Key findings
- Recommendations
- Appendix:
 - Data sources
 - Data methodology

Objective

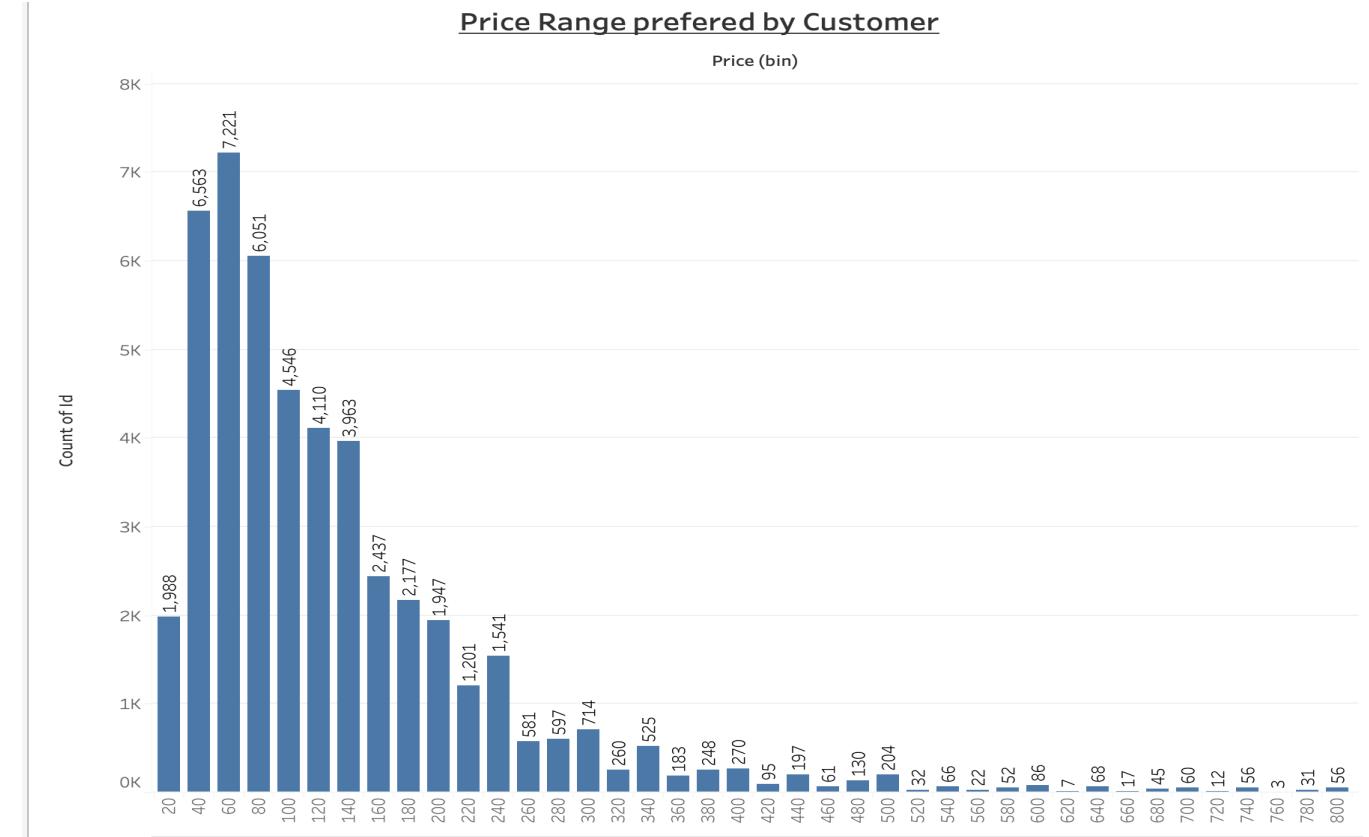
- Airbnb provides an online platform where individuals can offer their unused accommodations for rent.
- Airbnb suffered a significant loss in revenue during the Covid pandemic.
- With the resumption of travel, Airbnb aims to revive its business and resume providing services to customers.

Background

- Airbnb has experienced a significant decrease in revenue over the past several months.
- As restrictions are easing and travel is picking up, Airbnb aims to be fully equipped for this shift.
- A dataset containing diverse Airbnb listings in New York has been analyzed for this purpose.

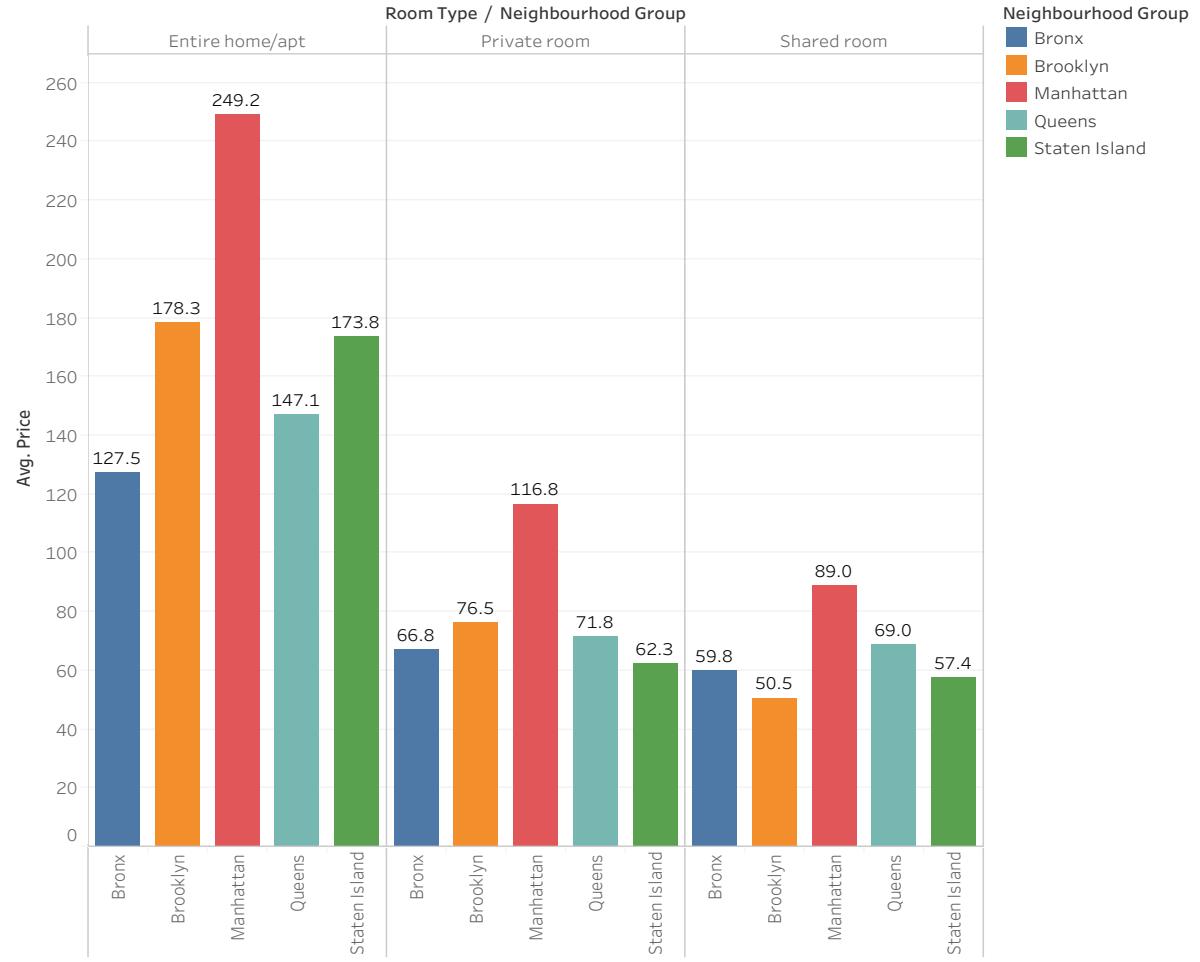
Customer-preferred pricing range

- By analyzing the volume of bookings made within a particular price range, we have identified pricing preferences.
- According to the graphs, the price range of **\$40 to \$200** is favored by customers.
- This price range is the most popular among the majority of customers.



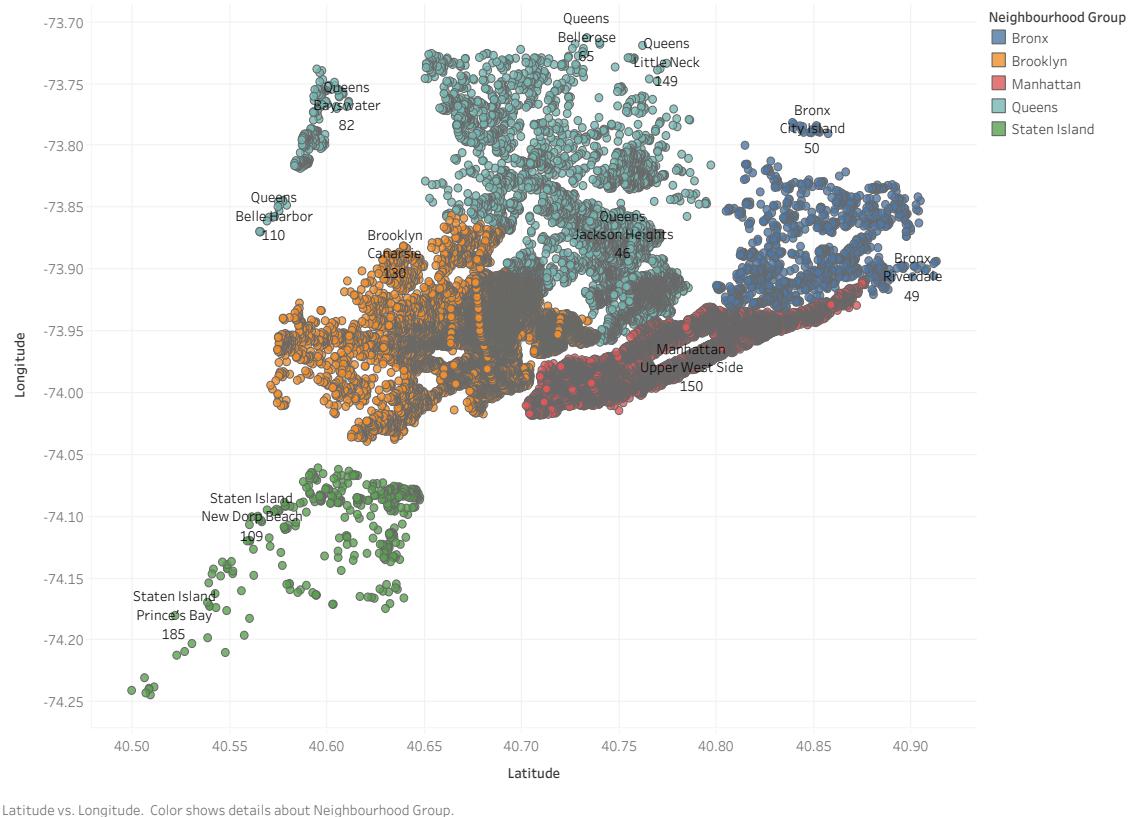
Room type and Neighborhood group-based price fluctuation

- The average price of entire home/apartment rooms in Manhattan is significantly higher than the overall average, standing at \$292.2.
- Private rooms in Manhattan and Brooklyn are associated with the highest average cost.
- Shared rooms are the most affordable in Brooklyn, with an average price of \$50.5.



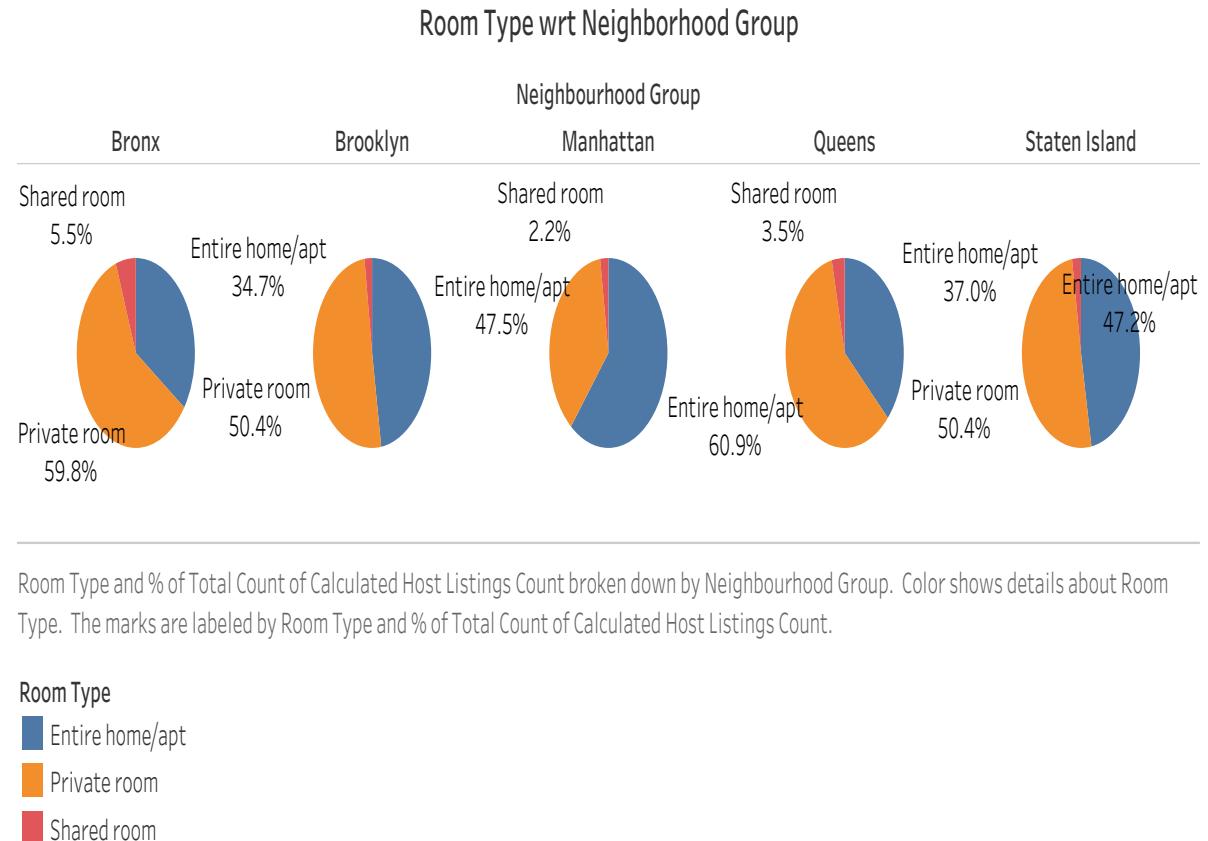
Geographic-based price variation

- Airbnb has established a strong presence in Manhattan, Brooklyn, and Queens.
- The maximum number of listings can be found in Manhattan and Brooklyn, as they are densely populated and serve as the financial and tourism hub of New York.
- Staten Island has the lowest number of listings, likely due to its sparse population and limited tourism attractions.



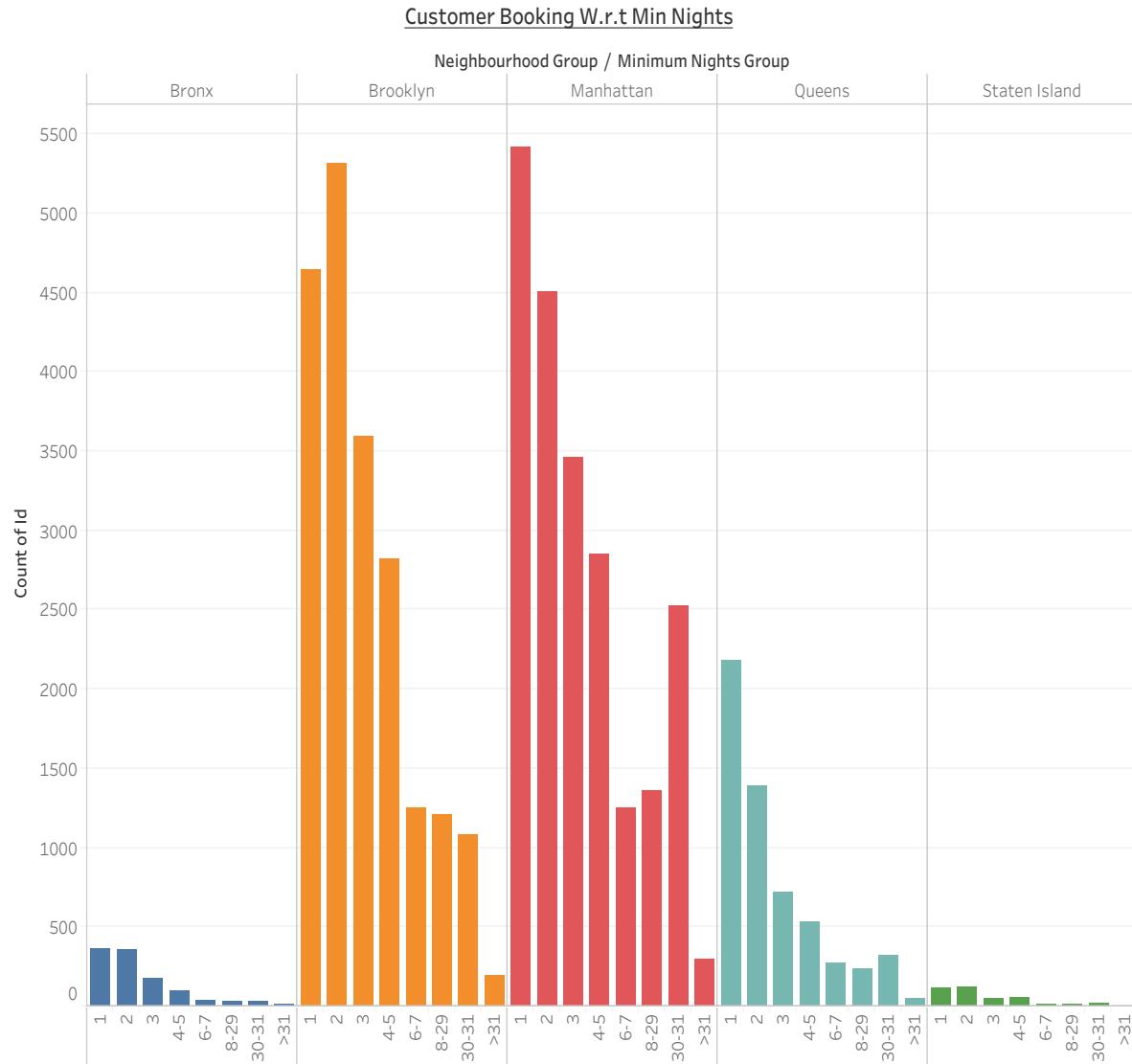
Distribution of businesses by Neighborhood group

- Manhattan and Brooklyn are top choices for accommodation bookings, with most visitors preferring entire homes or private rooms.
- Manhattan has the most home/apartment properties (60.9%) and the Bronx has the most private rooms available (59.8%).
- There are very few shared rooms available in each neighborhood group.



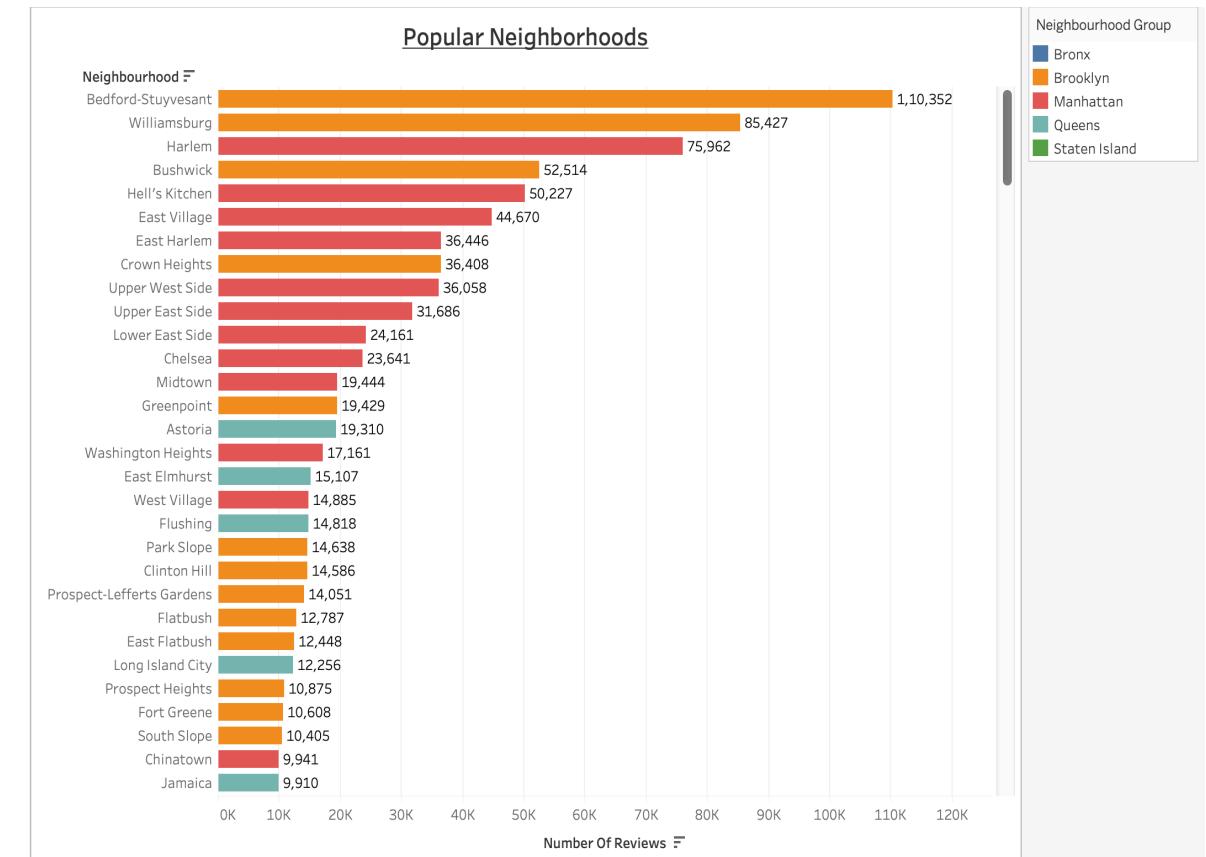
Booking patterns based on minimum stay requirements

- The most popular listings are those with minimum stay requirements of 1-5 nights.
- There is a noticeable spike in bookings for 30-day periods, which may be attributed to customers renting on a monthly basis.
- Following the 30-day mark, there are also smaller spikes, indicating a trend towards monthly rental periods. Manhattan and Queens have the highest number of 30-day bookings, which may be due to tourists booking longer stays.



Well-reviewed neighborhoods

- Bedford-Stuyvesant in Brooklyn has the highest number of reviews with 110,352, followed by Williamsburg.
- Harlem in Manhattan has the highest number of reviews, followed by Hell's Kitchen.
- Localities with the highest number of customer reviews are likely to have higher satisfaction levels.



Recommendations

- Private rooms and entire apartments should be acquired, particularly in Staten Island, as it is a popular location.
- In Manhattan, the price of entire apartments should be reduced by at least 15%, while the price of private rooms in Queens should be increased by at least 10%.
- Listings with minimum stay requirements of 1-5 days and 30 days are the most popular and should be prioritized by showcasing them first, with the properties available for the most number of days listed at the top.

Appendix – Data Sources

- Here is a snapshot of our data dictionary
 - Host listing information, such as the host name, neighborhood, latitude, and longitude.
 - Customer preference information, including the number of reviews and the number of reviews per month.

Appendix – Data Methodology

- Our analysis of the New York Airbnb dataset involved extensive data wrangling using Python.
- We leveraged Tableau to analyze and visualize the data effectively to uncover insights.
- For a detailed understanding of our methodology, please refer to the accompanying document.
 - [Airbnb_casestudy_Methodology_Document.pdf](#)

Thank You