



Visionary Insights from the Airbnb, NYC Analysis

For Lead Data Analyst & Data Analysis Manager



Agenda

- Objectives
- Initial Understanding & Assumptions about the Data
- Background Summary
- Important Findings
- Training Methods
- Appendix - Data Methodology
- Team Background and Details

The background of the slide features a photograph of a large, multi-story house with a modern glass extension, surrounded by lush greenery and trees. The image is partially obscured by a large, wavy, magenta-colored graphic that covers the lower two-thirds of the slide.

Objectives

- Improve our overall understanding of the impact of Covid-19 on economic and market conditions for the Airbnb Community.
- Gather insights and provide detailed analysis to our Lead Data Analyst and Data Analysis Manager about the impact of Covid-19 on economic and market conditions for the Airbnb community.
- Improve our shared understanding about the challenges and gap we faced during our Research phase and Data Preparation.



Initial understanding & Assumptions about the Data

- There could be two reasons for the decline in Airbnb's revenue:
 - < Firstly, the sites hosted on the platform may not be providing a satisfactory user experience to the end consumers.
 - < Secondly, there could be a competitor that is capturing a share of the market.
- We will first focus on the first reason, as it is an internal issue that the company has control over, and we have access to the necessary data for analysis.
- The data provided has been captured from the CRM tool that Airbnb uses to manage customers who are hosting sites on their platform.
- It is assumed that the reviews in the provided data frame are positive since there is no indication that they are negative reviews.

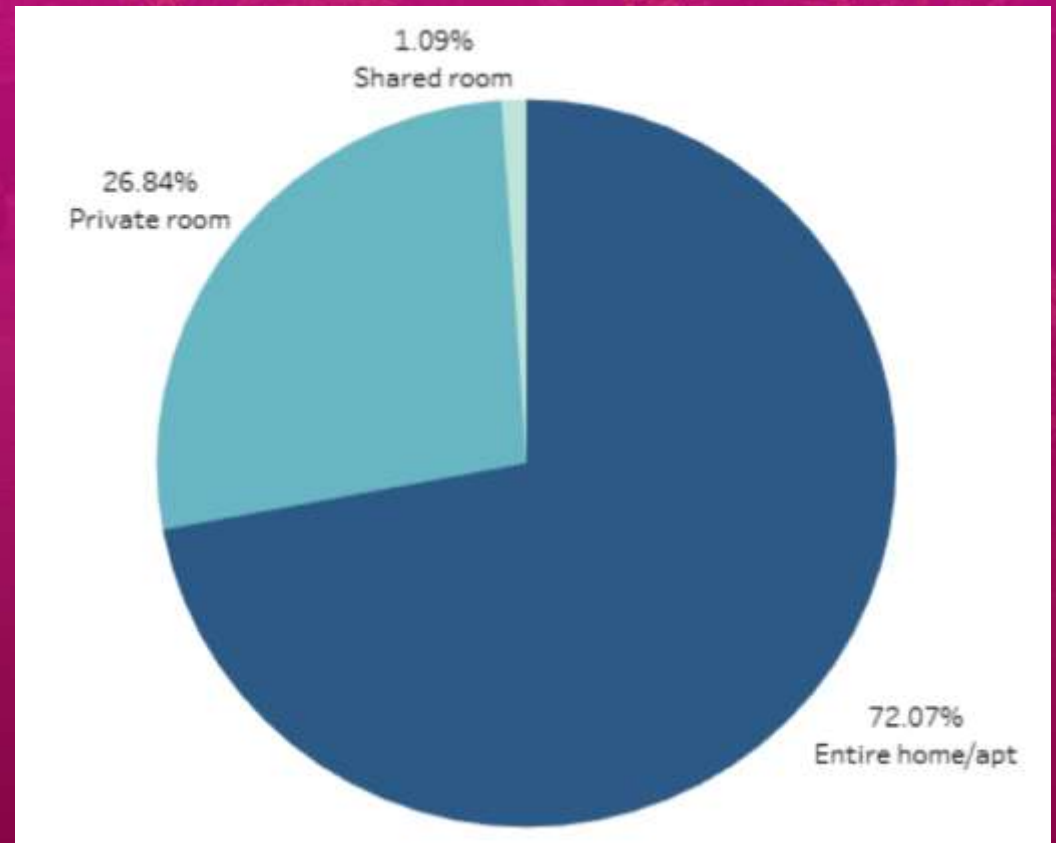


Background Summary

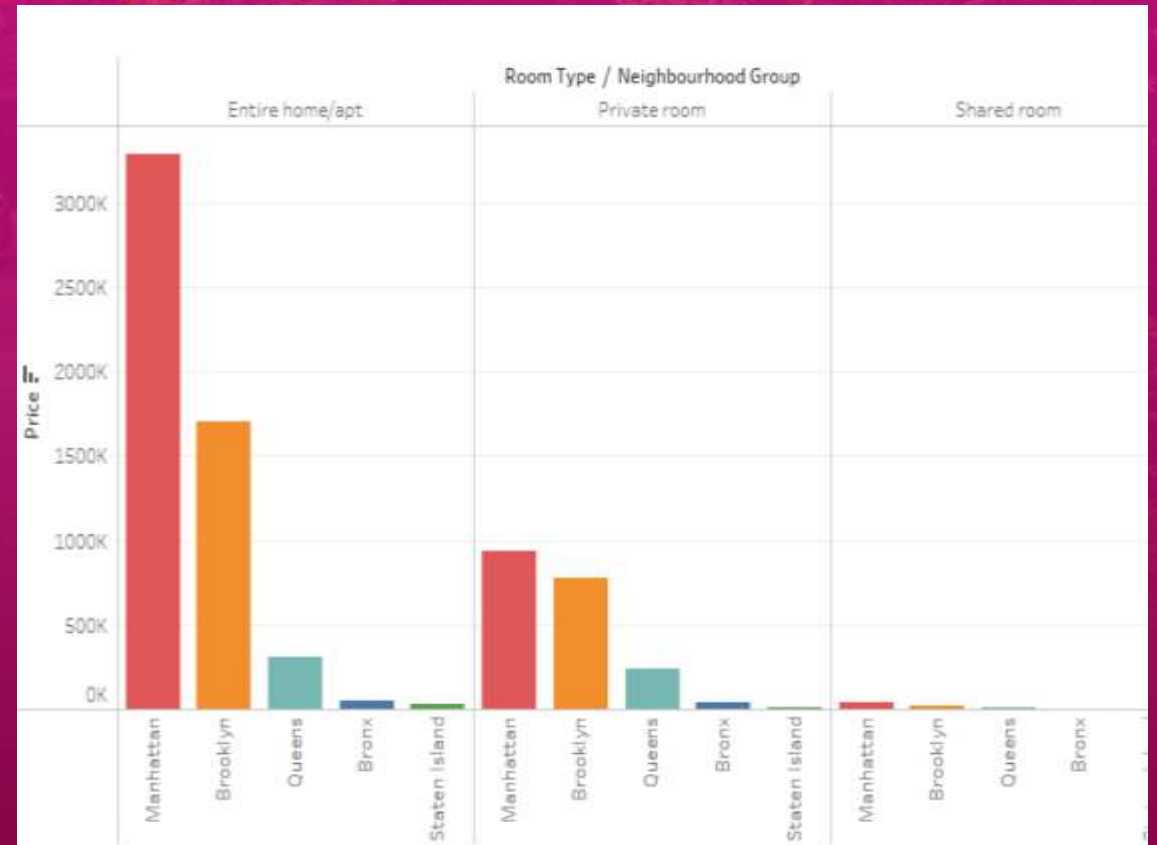
- All the five neighborhood's borough (New York City) – the Bronx, Brooklyn, Manhattan, Queens and Staten Island – have contributed around \$105 million in economic activity and supported 950 jobs in the outer boroughs past year.
- In the last few months, Airbnb has seen a major decline in revenue due to lockdown imposed during pandemic.
- Hence provided the information in hand based on previous data captured, we need to analyze the patterns for declining profits and identify the gap we came across while gathering insights.



➤ 72.07 % of customers prefer an Entire home/ apartment for their stay.

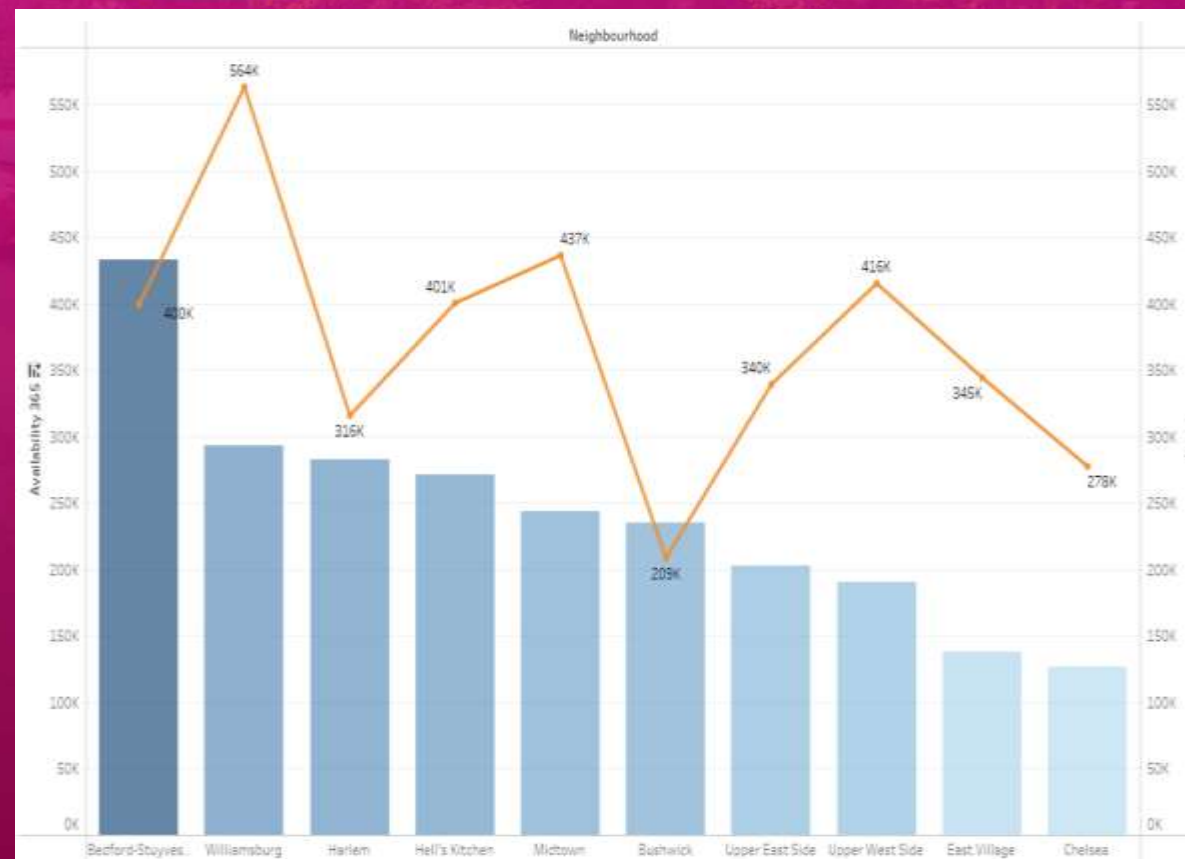


- Brooklyn and Manhattan are the top leading neighborhood groups in the rooms listings and the majority of people like the entire home or private room.





- Bushwick is an evolving, industrial area marked by imaginative street art and converted warehouses. People love to see such artworks. Moreover, the price is affordable and available for stay.





Location and Property Analysis

- **Top 5 hosts with highest number of Reviews for their sites & high Price Range**-Michael, David, Alex, John and Daniel.
- **Top 5 locations with highest number of Reviews in lowest Price Range**-Staten Island - Silver Lake, Staten Island - Richmond town, Staten Island – Eltingville, Staten Island - Huguenot and Brooklyn - Manhattan Beach.
- **Locations with lowest number of Reviews in high price Range**-Queens - Neponsit, Manhattan - NoHo, Manhattan - Tribeca, Staten Island - Willowbrook and Manhattan - Flatiron District.



Recommendations

- We should acquire more private rooms and entire apartments type of accommodations, with a focus on Staten Island due to its popularity.
- We should consider reducing the prices of entire apartments in Manhattan by at least 15% and increasing the prices of private rooms in Queens by at least 10%.
- We recommend showcasing listings with the most popular minimum number of nights requirements, which range from 1-5 days and 30 days. To further prioritize these listings, we suggest ordering them based on the properties that are available for the greatest number of days to the least number of days. This will help potential renters quickly find the most desirable listings that fit their desired length of stay.

Appendix – Data Methodology

- Methodology Approach
 - Research Problem
 - Business Understanding
 - Type of Data Require
 - Whom are we presenting?
 - Recommendations
- Method of Analysis along with code
 - Data Understanding and Preparation
 - Variables overview
 - Handling missing values and outliers
 - Feature selection
 - Analyzing methods
 - Matrix used Analysis
 - Evaluation of Methods
- Training Methods
 - Python used for Data Understanding, Pre-processing and general Univariate and Multivariate Analysis.
- Finding and Insight





Team Details

- Heena Kanzar
- Sai Rama Krishna
- Kunwar Urjaswit