

Effects of COVID-19 on Customer Preferences

AGENDA

- Objective
- Background
- Key findings
- Recommendations
- Appendix:
 - Additional Insights
 - Data methodology
 - Data model assumptions

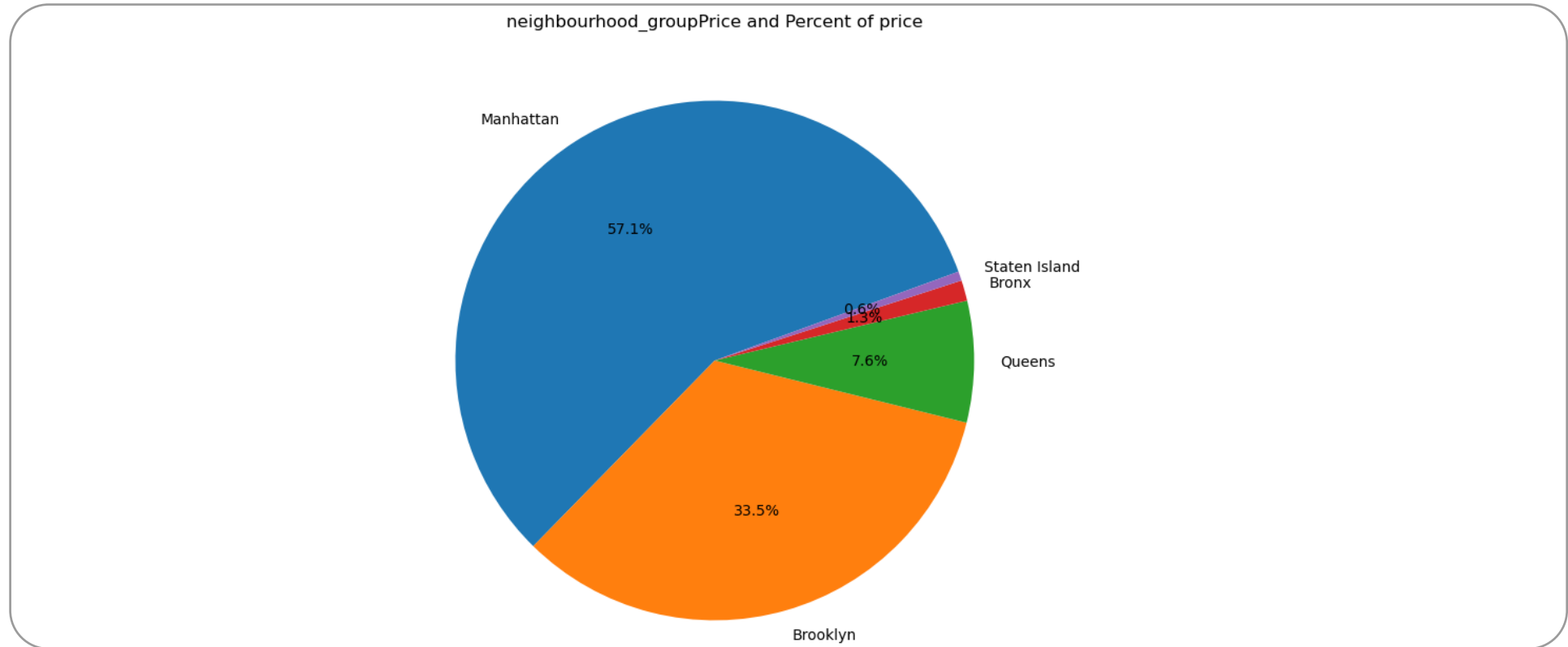
OBJECTIVE

- Enhance our post-COVID business revival strategies
- Explore customer preferences and user experience trends for the Airbnb NYC business
- Offer early recommendations for new acquisitions and enhancements to improve the overall customer experience

BACKGROUND

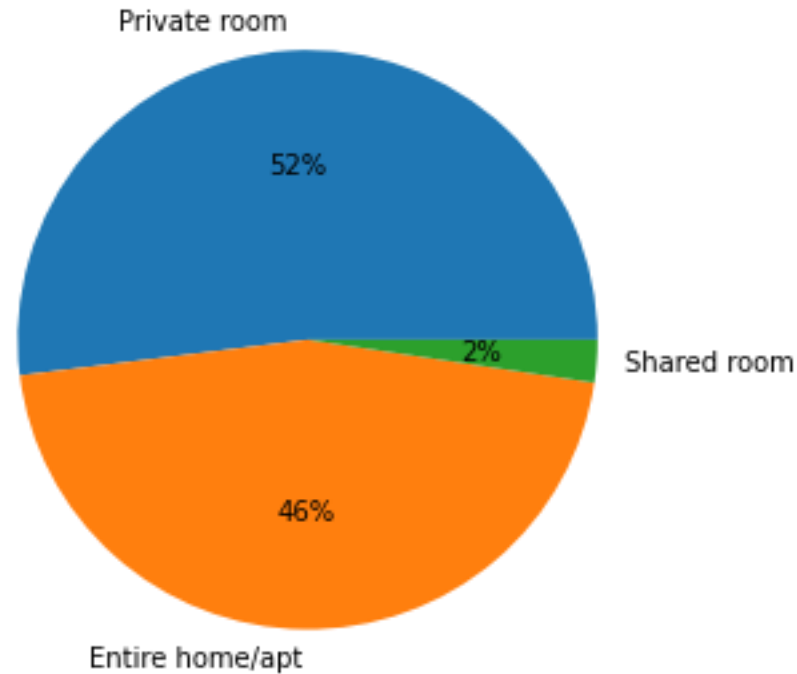
- The Airbnb business was significantly impacted by the COVID-19 pandemic, primarily as a result of travel restrictions
- The most substantial decline in revenue occurred in NYC during Q2 of 2020
- With the easing of travel restrictions, there is an opportunity to operate the business strategically to recover from the losses

Neighborhood group Price



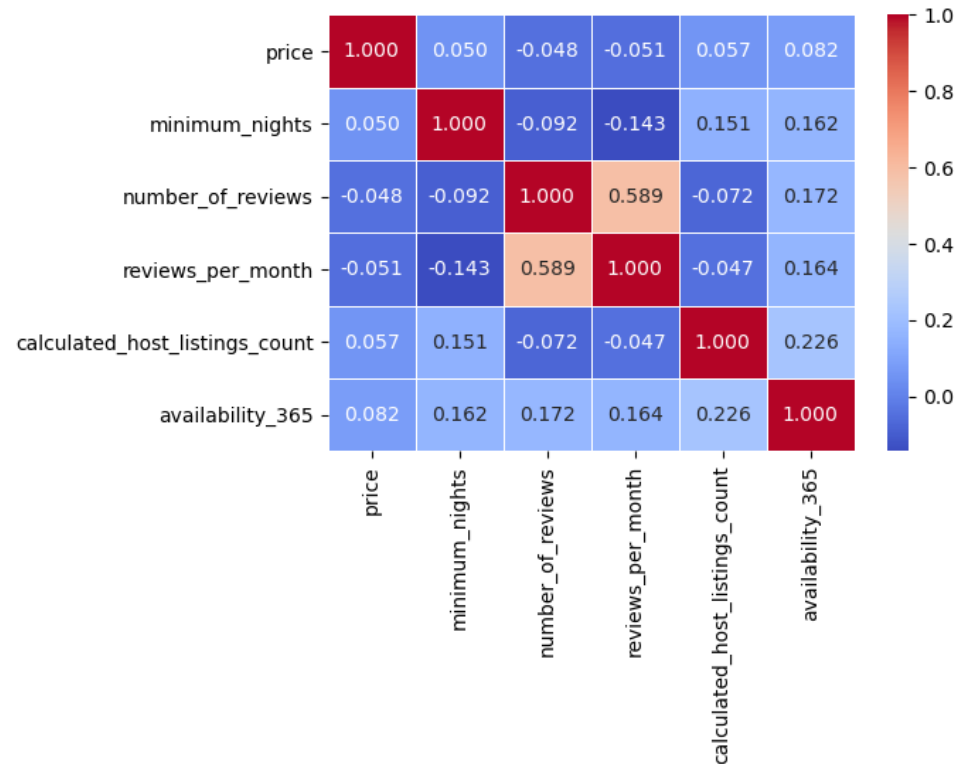
- The majority, around 85%, of listings are situated in Manhattan and Brooklyn, establishing them as the most popular destinations

Room type



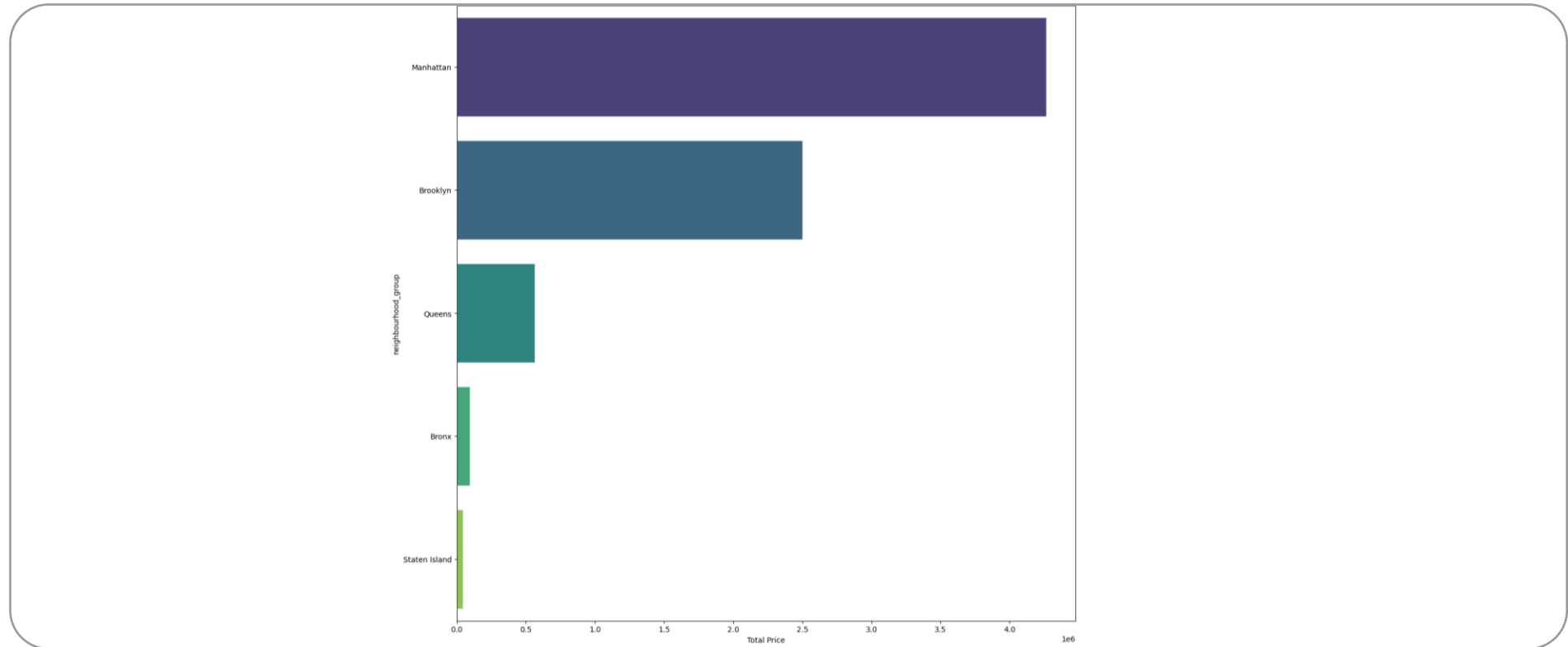
- A significant 98% of guests express a preference for a private room or an entire home/apartment, indicating that shared rooms are a less favored choice for property types

Co-relation matrix



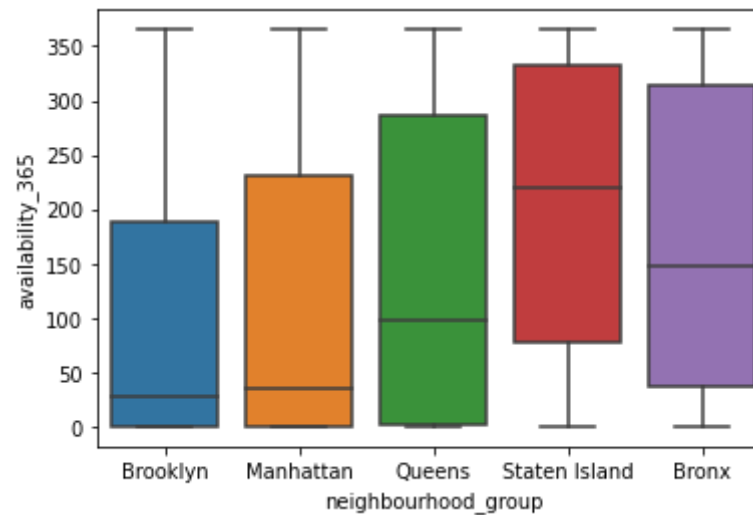
- According to the correlation matrix, it was noted that the variable "reviews per month" exhibits a high correlation with the number of reviews among all the variables

Top neighborhood by Price



- Manhattan boasts higher prices, rendering it one of the more attractive areas

Top neighborhood by Availability



- Staten Island's rooms, despite having lower prices, experience comparatively fewer bookings, while properties in Brooklyn are rented out for a more extended duration throughout the year

Maximize bookings by offering properties with minimal minimum nights stay

- Currently, prioritizing the acquisition of premium properties is discouraged due to their high prices
- As the minimum nights to stay increase, the associated price rises, leading to a natural decline in bookings
- Past observations indicate that hosts who offer a minimal number of nights to stay have historically received the highest number of bookings

Anticipated sustained high demand for entire apartments and private rooms post-covid based on customer preferences

- Among the three listing options, customers show a preference for Entire home/apt or Private room
- The categories 'Entire home/apt' and 'Private room' collectively make up a significant majority of the listed properties, comprising approximately 97.6%
- Shared rooms, in contrast, represent a minor portion, accounting for only 2.4% of the total listed properties

APPENDIX- Additional Insights

- The majority of listings are individually hosted by a single host.
- Manhattan exhibits a 14.7% higher contribution of 'Entire home/apt' compared to the overall percentage of 'Entire home/apt.'
- Queens demonstrates a 23.2% higher contribution of 'Private room' compared to the overall percentage of 'Private room.'

APPENDIX – Data Methodology Overview

- **Data Source:**
 1. Dataset: AB_NYC_2019.csv
 2. Tool: Jupyter Notebook
- **Dataset Import:**
 1. `df = pd.read_csv('AB_NYC_2019.csv')`
 2. Rows: 48,895, Columns: 16
- **EDA and Data Manipulations:**
 1. Addressed missing values and outliers.
 2. Converted data types and handled null values
- **Feature Addition:**
 1. Categorized key columns for analysis

APPENDIX – Data Methodology Overview

- **Data Source:**
 1. Dataset: AB_NYC_2019.csv
 2. Tool: Jupyter Notebook
- **Dataset Import:**
 1. `df = pd.read_csv('AB_NYC_2019.csv')`
 2. Rows: 48,895, Columns: 16
- **EDA and Data Manipulations:**
 1. Addressed missing values and outliers
 2. Converted data types and handled null values
- **Feature Addition:**
 1. Categorized key columns for analysis

APPENDIX – Analysis and Visualization

- **Univariate Analysis:**

1. Explored unique counts and distributions
2. Analyzed 'neighbourhood group,' 'room_type,' and more

- **Bivariate Analysis:**

1. Explored correlations and relationships
2. Analyzed 'neighbourhood' vs 'prices' and 'room_type' vs 'number_of_reviews_categories.'

- **Multivariate Analysis:**

1. Explored mean of 'reviews_per_month' vs 'availability_365_categories' and 'price_category.'

- **Conclusion:**

1. Provided insights into unique counts, distribution patterns, and correlations
2. Informed decision-making for subsequent analysis and recommendations

APPENDIX - Data Assumptions

- We operated under the assumption that the data before the COVID-19 period reflected the attainment of the desired revenue
 - We assumed the company currently has no plans to expand into new territories in NYC
 - The company's strategies are formulated with the expectation that travel will increase in the post-COVID period

Thank you!