

Business Growth Strategy - Airbnb

Presented to **Data Analysis Managers and Lead Data Analyst**
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Agenda

- Objective
- Background
- Key Findings
- Recommendations
- Appendix
 - Data
 - Assumptions
 - Methodology

Objective

- Provide recommendation for increase in revenue
- Draw Insights based on the data provided and identify various factors affecting reviews of the customer
- Recommendation for current properties based on property categorization done using data analysis tools like Python and Power BI

Background

The Covid breakout brought multiple businesses around the world to a stand still. Airbnb was also badly affected due to it. Now, that the markets are reviving, Airbnb wants to make sure they are ready for the market needs to bring their revenue back on track.

The Airbnb and Upgrad team worked closely to extract various datapoints that were seen responsible to impact reviews based on which this analysis was conducted.

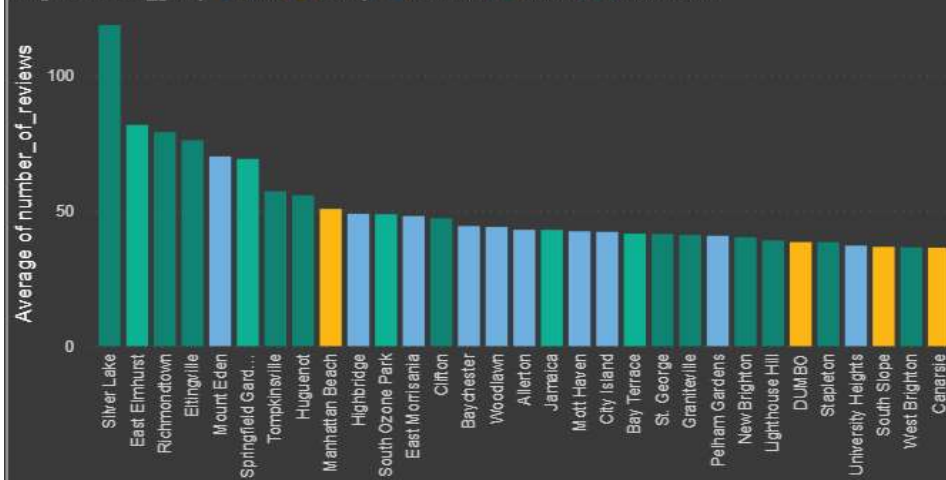
Grouping the Preferred Properties

The properties Categorised as cluster 0 are customer's favourite based on their ratings. These properties are:-

- Properties in Staten Island (especially Silver Lake and its likes) have one of the highest average ratings of > 100 and yet low nightly rates as low as 70 per night.
- Entire Apt or Private rooms mostly located in Brooklyn or Manhattan are the most acquired by Airbnb currently.
- Properties marked as mid and low range in terms of Price. These are the ones with nightly rate between 69 to 175 and an average nightly rate of 130. Quite a people also seems willing to spend bit more to stay in these properties.

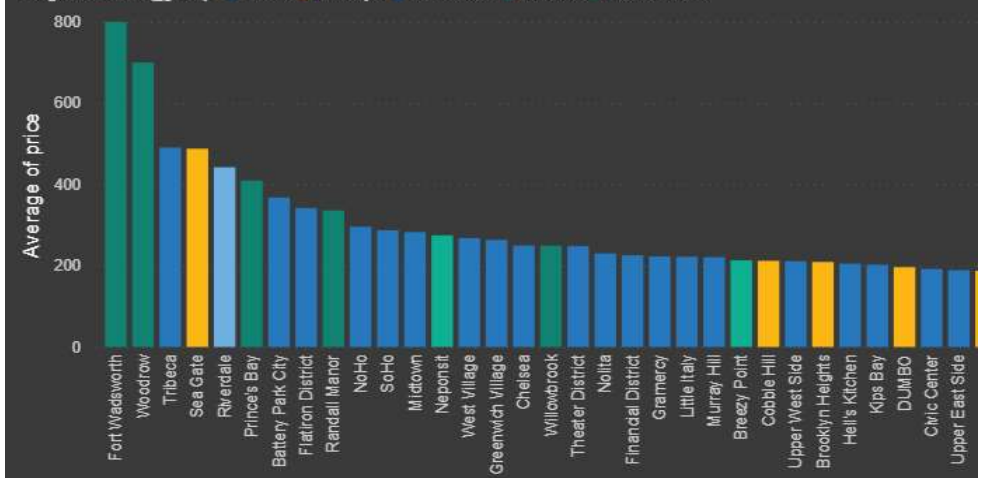
Reviews Vs Neighbourhood

neighbourhood_group ● Bronx ● Brooklyn ● Manhattan ● Queens ● Staten Island



Price Vs Neighbourhood

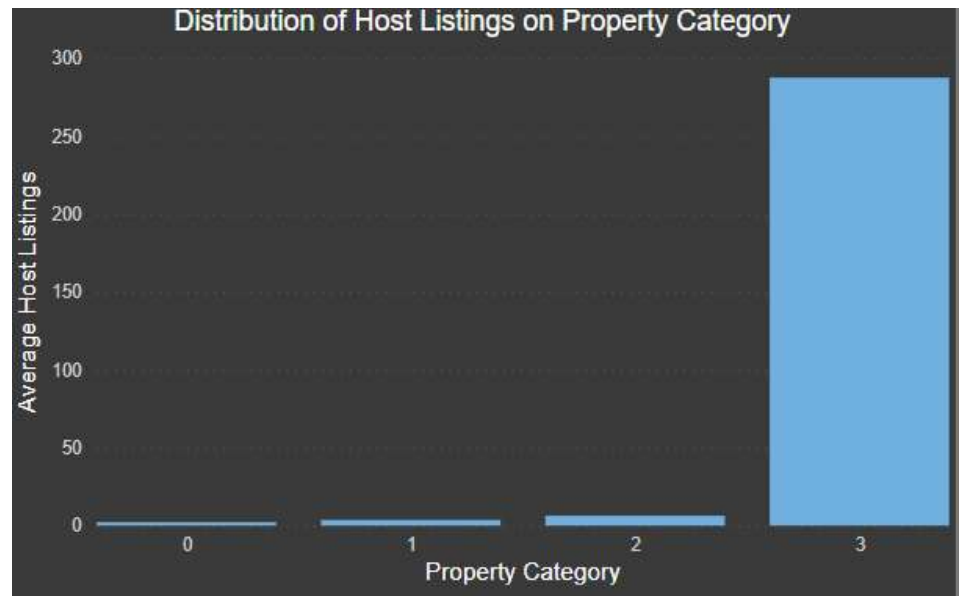
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Grouping Worst Performing Properties

Properties that Airbnb should let go or avoid based on the reviews are the ones clustered as 3. The one clustered as 2 are also performing badly. These properties are:-

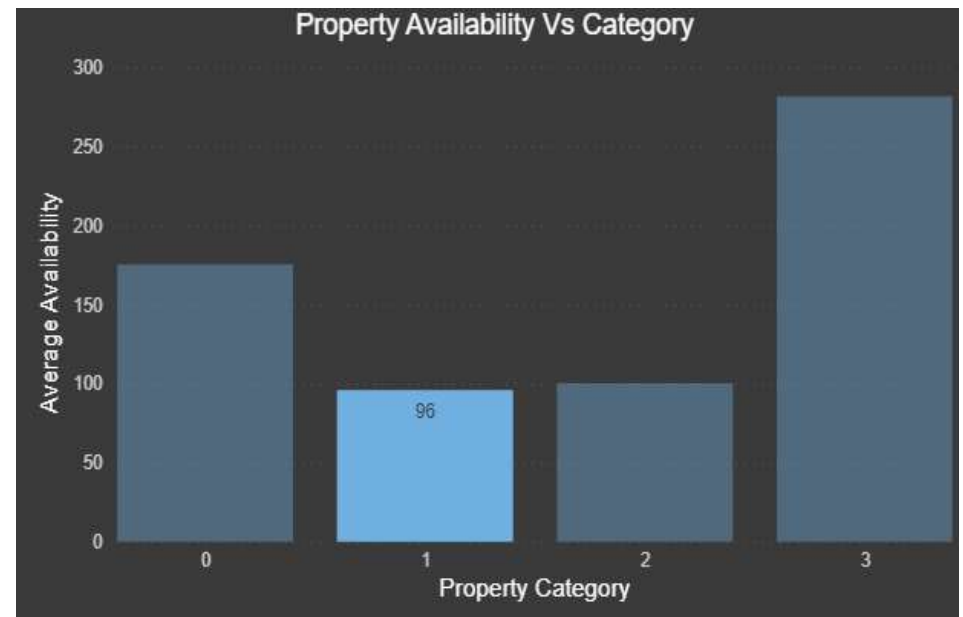
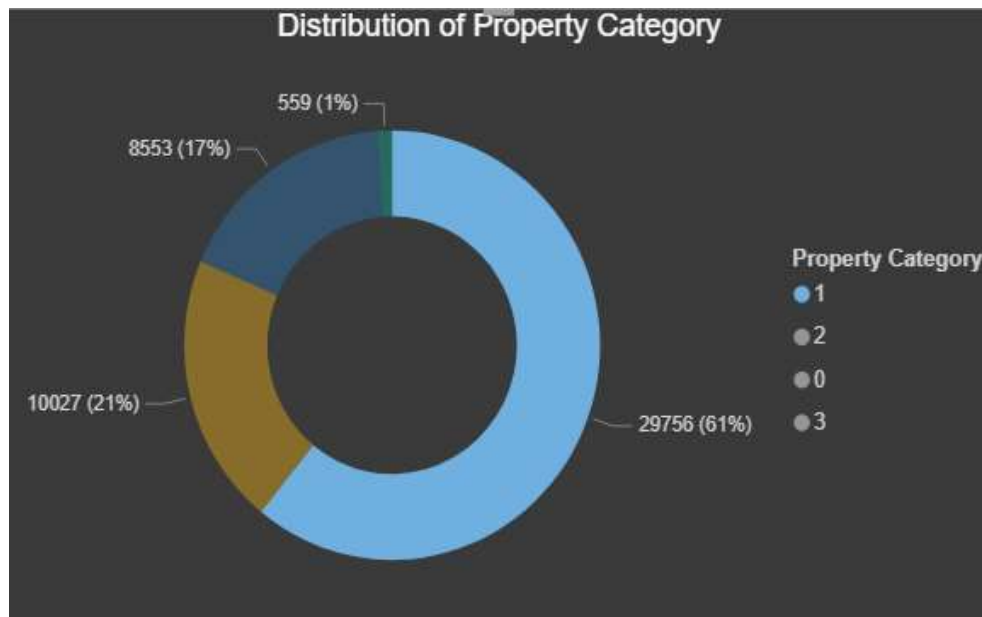
- Ones with higher average nightly rate of more than 200.
- Ones with the owner having multiple property listings. Properties for owners having more than 5 listings have less reviews. Such properties tends to have a lower review and hence a potential loss to business.
- Ones having requirement for more than 3 minimum nights.
- Shared properties have least reviews.



Grouping the Properties Needing Upgrade

Properties clustered as 1 also don't have good review. They should be aligned to bring Airbnb success. These properties are:-

- Approx 30k (61%) of properties owner by Airbnb spread across New York's neighbourhoods.
- Ones with lowest availability. They should be asked to work on availability for maximum duration.
- Should be asked to be more interactive to customers to get feedbacks/ reviews.



Recommendations

- Encourage more properties to be like cluster 0 properties in terms of pricing for location, room type and min number of nights.
- Do away with property owners with more than 5 properties and shared properties.
- Focus more on low or average nightly rate properties in Staten Island for quick results.

Appendix - Data

- Data provided at the Upgrad portal.
- Data dictionary shared by Upgrad.

Appendix - Assumptions

- Data in 'Number of reviews' and 'reviews per month' is for positive reviews. Even if there are negative reviews, they have been handled in the data.
- Many records have no data for the column reviews_per_month. It is assumed that these properties were never reviewed and hence the null value is imputed in 0's.
- Similarly last_review date is not provided for many properties. For purpose of modelling the null values in this column were imputed such that they seems to be the oldest to be reviewed and not reviewed in recent times.

Appendix - Methodology

- Please refer the document “Methodology Document” on details on how the data was processed to draw these insights and many more such insights.