

## Air BNB Case Study

### Analysis Methodology

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#### Scope:

The Purpose of the Case Study is to provide Insights to the AIRBNB Management to Ramp up their efforts to Increase Revenue & Market share Post Pandemic

This Document Captures the Steps followed for Analysis

#### DATA PREPARATION PROCESS

- 1) Used Power Query to Import Data from CSV to Excel
- 2) Removed all Errors and Blank Rows
- 3) Appended "LS" as Prefix to Listing\_ID >>> Makes It easier not be used as a Measure
- 4) Appended "HST" as Prefix to Host\_ID >>> Makes it easier not to be used as a Measure
- 5) In Excel Created Column Min\_Stay to create Bins for Minimum\_Nights  
Using the Formula

```
=IFS([@[minimum_nights]]<2,"Day",  
    [@[minimum_nights]]<=7,"Week",  
    [@[minimum_nights]]<=15,"FortNight",  
    [@[minimum_nights]]<=31,"Months",  
    [@[minimum_nights]]<95,"Quarter",  
    [@[minimum_nights]]<=200,"Half Year",
```

[@[minimum\_nights]]>=201,"Full Year")

Thus Binning into Categories based on Minimum Nights

6) Created Column **Min\_Price** as [Price] X [Minimum\_Nights]

7) Availability\_365 >> On Similar lines as Minimum\_Nights to Min\_Stay ,  
Created Column Available\_Duration

```
=IFS( [@[availability_365]]=0, "NOTAVIAL", [@[availability_365]]<2,"Day",  
[@[availability_365]]<=7,"Week",  
[@[availability_365]]<=15,"FortNight",  
[@[availability_365]]<=31,"Months",  
[@[availability_365]]<95,"Quarter",  
[@[availability_365]]<=200,"Half Year",  
[@[availability_365]]>=201,"Full Year")
```

8) Added Columns Country & State USA , New York

9) Saved the File and Used as Input for Tableau Report

## DATA VISUALIZATIONS

1) Imported the Cleaned Excel File into Tableau as Data Source

2) Converted the Country / State / District / neighbourhood to a **Geographic Role**

3) Used **Group** Option to create 3 Groups of Short Term / Medium Term / and Long Term for Both Minimum\_Nights and Available\_365

4) Assumed Available\_365 = 0 as Listed Rooms but Not Available

## 5) Created Various Charts to compare Measures and Dimensions

- a. Horizontal Bar Chart & Pie Chart (Showing Percent of Whole)
- b. Stacked Bar Chart to Show #Listings against two Categories
- c. Calculated Field Index() to Show District Wise Filtered by Top 5
- d. Maps to Show Distributions
- e. Bubble Charts to Show # of Listings by Host and Median Price for that Host
  - i. (Two Measures against 1 Dimension (hosts))
- f. Box Plot to Show Distribution of Median Price by District / Neighbourhood
- g. Scatter Plot – Price vs Reviews
- h. Table Showing Median Price for Various Min Stay Options and Percentage Difference to Highlight Significant Diff.

## INSIGHTS IDENTIFICATION

Based on the Various Charts Created Key Insights were noted

Charts were Updated or Filters Added to Support the insights

## REPORTING

Two Presentations are created

- 1) For Business Leaders – Highlighting Key Insights for further actions
  - a. Only Relevant Visuals that support the Story are Added
- 2) For Data Analytics Team – Indicating the Process followed for Inputs on further Improvements & address Gaps
  - a. All Charts that were created are included and Rationale for not including in Business Slides is provided