Objective of Model/Study – To establish correlation factor between FX(Foreign Exchange rates) e.g. GBP-USD, AUD-USD, EUR-USD etc. and demand (booking/stay nights) for industry and XYZ hotels.

Correlation to be studied at –

1. City level
2. City level and segments level

Lag factor to be established and sensitivity analysis should be performed to understand when the actual bookings would land and how much it would be impacted by YoY change in FX rates respectively.

Data sources used in study –

1. Country Data – Data extract from XYZ vs Industry dashboard – STR
2. City Data – Data extract from XYZ vs Industry dashboard – STR
3. Exchange Rates - <https://www.ofx.com/en-sg/forex-news/historical-exchange-rates/monthly-average-rates/>
4. UK\_USA Feeder – Data extract from SQL Database
5. UK&I Feeder % - Data extract from commercial prioritization model beta – puts light on revenue share from different feeder countries

City Graph and Country Graph – used to understand FX, Demand, RevPar, ADR and Occupancy movement YoY visually

Correlation Tab – Populates numbers for FX, Industry Demand, ADR, Occupancy and Revpar for all time frames available based on slicer selection from “Slicers”. Please note – numbers on this tab is used to understand correlation factor at country level only. Hence, only “Country” and “Country Name for Market Selection” will impact the numbers in this tab. Multiple iterations are run based on different data points available which we call as Model 1, Model 2 etc.

Correlation Mode – Refers to numbers in “Correlation Tab” and populate numbers in tabular format for sorting. Sorting is used to find best time frame and correlation factor along with best lag factor.

Similarly, “Co-relation (City)” and “Correlation Model (City)” are deployed to understand similar factors but at city level. Both City and country numbers are at industry level.

Sensitivity analysis model, sensitivity analysis model 2 and qtr are used to understand sensitivity based on multiple time frames. It predicts demand for user provided FX rates for future time frames.

Feeder Market Check – this tab hold data from commercial prioritization model beta, used to understand market share in terms of revenue based on feeder countries.

UK\_USA Feeder – Tab is used to populate number of biking based on feeder countries using pivots and slicers. Source of data is Staypace for which logic is available with Vinit.

Sensitivity Analysis (Feeder) – Works with similar methodology as “Sensitivity analysis model” but for numbers based on “UK\_USA Feeder” bookings.

Feeder Graph – Based on numbers from “Exchange Rate” data source and booking numbers from “UK\_USA Feeder” tab. This tab has a chart to populate FX and demand (bookings) YoY movement for feeder countries.

UK\_USA Feeder Corr – Tab pulls in booking numbers from “UK\_USA Feeder” sheet and calculates correlation factor based on multiple data points with multiple iteration to find best lag factor.

Correlation Model (Feeder) – Tabulate numbers from “UK\_USA Feeder Corr” to be sorted for best correlation factor.

Summary Table – Cities and their correlation factors can be summarized by running “macro1”. This macro changes slicers in “UK\_USA Feeder” and automatically summarizes numbers from “UK\_USA Feeder Corr” in table form for 3 different models based on different data points.