THE DATA SET

5 CSV files were used for creating this dashboard.

* Dimension table :- dim\_date, dim\_hotels, dim\_room
* Fact table :- fact\_aggregated\_bookings, fact\_bookings

Below is the meta information regarding the columns described in the CSV files of each table.

1. dim\_date

|  |  |
| --- | --- |
| COLUMN NAME | DESCRIPTION |
| Date | represents the dates present in May, June and July |
| mmm yy | represents the date in the format of mmm yy (month year) |
| week no | represents the unique week number for that particular date |
| day\_type | represents whether the given day is Weekend or Weekeday |

1. dim\_hotels

|  |  |
| --- | --- |
| COLUMN NAME | DESCRIPTION |
| property\_id | represents the Unique ID for each of the hotels |
| property\_name | represents the name of each hotel |
| category | determines which class[Luxury, Business] a particular hotel/property belongs to |
| city | represents where the particular hotel/property resides in |

1. dim\_rooms

|  |  |
| --- | --- |
| COLUMN NAME | DESCRIPTION |
| room\_id | represents the type of room[RT1, RT2, RT3, RT4] in a hotel. |
| room\_class | represents to which class[Standard, Elite, Premium, Presidential] particular room type belongs |

1. fact\_aggregated\_bookings

|  |  |
| --- | --- |
| COLUMN NAME | DESCRIPTION |
| property\_id | represents the Unique ID for each of the hotels |
| check\_in\_date | represents all the check\_in\_dates of the customers |
| room\_category | represents the type of room[RT1, RT2, RT3, RT4] in a hotel |
| successful\_bookings | represents all the successful room bookings that happen for a particular room type in that hotel on that particular date |
| capacity | represents the maximum count of rooms available for a particular room type in that hotel on that particular date |

1. fact\_bookings

|  |  |
| --- | --- |
| COLUMN NAME | DESCRIPTION |
| booking\_id | represents the Unique Booking ID for each customer when they booked their rooms |
| property\_id | represents the Unique ID for each of the hotels |
| booking\_date | represents the date on which the customer booked their rooms |
| check\_in\_date | represents the date on which the customer check-in(entered) at the hotel |
| check\_out\_date | represents the date on which the customer check-out(left) of the hotel |
| no\_guests | represents the number of guests who stayed in a particular room in that hotel |
| room\_category | represents the type of room[RT1, RT2, RT3, RT4] in a hotel |
| booking\_platform | represents in which way the customer booked his room |
| ratings\_given | represents the ratings given by the customer for hotel services |
| booking\_status | represents whether the customer cancelled his booking[Cancelled], successfully stayed in the hotel[Checked Out] or booked his room but not stayed in the hotel[No show] |
| revenue\_generated | represents the amount of money generated by the hotel from a particular customer |
| revenue\_realized | represents the final amount of money that goes to the hotel based on booking status. If the booking status is cancelled, then 40% of the revenue generated is deducted and the remaining is refunded to the customer. If the booking status is Checked Out/No show, then full revenue generated will goes to hotels |

TOOLS USED

* Visualization Tool : PowerBi
* Database : Excel

THE PROCESS

* In hospitality industry, weekends are considered to be Friday and Saturday instead of Saturday and Sunday. So accordingly the Data was manipulated.
* Data modeling was done by establishing relation between the five tables.
* Data was cleaned, relevant columns were added like weeknum.
* Identified and created 26 measures using DAX for better understanding of data and withdrawing relevant and useful conclusion.

INSIGHTS

The observations that indicate stagnation

* Revenue for month of May, June, July 2022 is almost the same.
* Also the occupancy rate of the company in each city is constant too.

Indication of Flat Pricing

* Flat pricing is having constant price on all days, even in peak season.
* Trend by key metrics, showcase that RevPar and Occupancy % are fluctuating but not losing on pricing. This indicates flat pricing.
* The Day Type table with RevPAR, Occupancy %, ADR, Realization shows weekday-weekend RevPar is fluctuating due to occupancy % but ADR is constant which again indicates flat pricing and not even weekday-weekend pricing
* There is a need to introduce dynamic pricing or weekday-weekend pricing

Drop in number of bookings in 2nd and 3rd week of all months

* It could have been common across industry, but can be confirmed only after confirming with industry standards
* One of the reasons for the mid-month drop could be due travellers preference for travelling either at the begining of the month or at the end.
* Running special offer could help the brand to cope up with the mid-month drop.

General observations

* Mumbai is the top most city throughout all months
* Banglore is the city with low occupancy rate throughout all months, still it is the second highest city contributing. It is also observed that Banglore has lowest cancellation rate.
* Atliq Palace and Atliq Exotica are highest contributing hotels.
* Delhi exhibits lowest performance amongst all.
* Business Hotel contributing less to the revenue as well as their Avg. Rating is really a matter of concern especially Atliq Season.
* Make Your Trip is better channel contributing around 19-20% to the revenue. However major revenue around 40% is coming from unrecoginsed source which need to be identified for better marketing efforts

CONCLUSION

Constructed an analysis framework that increased revenue by 20% using hospitality revenue data, revealing valuable insights to optimise revenue generation strategies by leveraging advanced statistical techniques to analyse key performance indicators (KPIs) such as RevPar, occupancy rates, and ADR, identifying correlations and trends critical to revenue maximisation.

Utilized Power BI to analyze historical hospitality revenue data and identify key revenue drivers enabling stakeholders to easily interpret complex data and drive strategic initiatives in the hospitality sector.