Challenge: Provide insights to the revenue team in hospitality domain

Requirement Understanding: AtliQ Grands has been in the hospitality domain for nearly 20 years, but due to increasing competition and ineffective decision-making strategies, it is losing its revenue and market shares in luxury/business hotels industry. As a strategic move, the managing director of AtliQ Grands wanted to incorporate “Business and Data Intelligence” to regain their market share and revenue, and has hired a 3rd party service provider to provide them with insights from their historical data.

Sample data and a mock-up dashboard has been provided to work on the following tasks-

1. Create the metrics according to the metric list.
2. Create a dashboard according to the mock-up provided by stakeholders.
3. Create relevant insights that are not provided in the metric list/mock-up dashboard.

\**Metrics list is given to describe the measures like Occupancy%, Capacity etc. in the available dataset*

Mock-ups & Solution Design: A mock-up of the dashboard has been given. Few important metrics that could be added as KPI to understand the revenue performance are:

* RevPar(Revenue per available room) = Total Revenue/ Total rooms available to sell
* OCC %( Occupancy rate) = Total rooms occupied/Total rooms available
* ADR(Average Daily Rate)= Total Rooms revenue/Number of rooms sold
* Realisation- Utilized Room Nights(URN)/Booked Room Nights(BRN)

(Utilized Room Nights is the actual number of people who booked and stayed, while Booked Room Nights is the total number of bookings including no shows, cancellations and utilised)

(DSRN= Daily sellable room nights, DURN= Daily utilized room nights)

*\*In hospitality management, Weekends are Friday and Saturday, while Sunday to Thursday is weekdays. Seeing the weekly trend (difference between last week and current week) is crucial.*

* 1. On the upper level, we could see how our key metrics/KPI like Revenue, RevPar, Realisation, Occupancy etc, are doing. We could also see the performance by daytype . Tooltips have been added to show trend view of KPIs, week over week.
  2. Going on Level 2, we can focus on particular factors like hotel type, room type, booking platform, and how the Key Metrics are changing week over week, according to these factors.
  3. On the root level, we can shed some light on details of the properties, and present them in a tabular form with all the metrics including, ratings, cancellation%, DBRN, DSRN along with KPIs as well.

Occupancy % of the properties could be compared at this level, to understand the cause behind low occupancy (low ratings, poor channel management, etc.).

Cancellation rate, no show rate, and checked out rate can also be seen on a holistic level, or for a particular property, at this detailed level, to figure out the possible causes behind it.

**Week on Week analysis is crucial here, focusing on day type as well, whether if it’s a weekday or weekend, to get a holistic approach.**

Data Transformation using Power Query:

1. Transforming the day type column, i.e. making Friday and Saturday as weekends.
2. Managing relationships between queries
3. Building metrics using DAX and creating several measures(given in metrics list file)

Dashboarding and Insights Generation:

What’s in my dashboard🡪

* Filters for city, room type, month and week
* Key metrics (Revenue, RevPar, DSRN,Occupancy%, ADR and Realisation%). Change over last week, i.e. delta has also been represented below each key metrics
* Key metrics for weekdays and weekends have also been shown.
* Revenue generated by hotel category(luxury and business).
* Weekly trend of key metrics
* Realisation% and ADR by booking platform or channels
* A detailed tabular presentation of metrics of all the properties.
* Comparison of occupancy% with highest occupancy%.
* Overall Cancellation%, No shows, and checked out%

Insights from my dashboard🡪

* Direct offline booking platform has the highest overall realisation% and ADR, which needs to be worked upon.
* The highest occupancy% in our data is 66.25%
* Luxury hotels have generated more revenue as compared to business hotels.
* Elite room type have generated highest revenue
* The highest revenue and rating have been generated by the same hotel in Mumbai, which is also the best performing city among the other cities
* There is very small difference in ADR (Average daily rate)generated on weekdays and weekends, which indicates that hotels are not looking over their pricing strategy(dynamic pricing), which if seen upon could generate more revenue, as the price factor in this industry is very elastic and changes heavily in weekends and weekdays.
* More emphasis could be put on booking platforms.
* Hotels with lower ratings should look upon the factors behind the low ratings if there are issues with the service they provide, or they are unable to work on the ratings. There is a strong correlation between occupancy, ratings and cancellation, because of which hotels should check the ratings, especially if they are operating on online channels

Overall, an effective pricing strategy is needed to increase revenue. Consecutively, ratings and booking platforms should be optimised for better performance.