**INTRODUCTION**

This report analyzes data from May to June 2022 for AtliQ Grands hotels, aiming to identify areas for improvement and regain market share. Power BI, a data visualization tool, was used to gain insights into key metrics like customer ratings, occupancy rates, revenue, and bookings.

**PROBLEM STATEMENT**

AtliQ Grands owns multiple five-star hotels across India. They have been in the hospitality industry for the past 20 years. Due to strategic moves from other competitors and ineffective decision-making in management, AtliQ Grands are losing its market share revenue in the luxury/business hotels category.

Objective: To provide AtliQ Grands with insights from their historical data to regain their market share and revenue.

**DATA SOURCE**

The dataset used for this analysis was collected from Code Basics' website. You can access the dataset through this link

**SKILLS DEMONSTRATED**

This project exposed me to learning a lot using Microsoft Power BI.
- Multiple complex DAX formulas and Functions.
- Calculated columns
- Data Extraction, Cleaning, and Transformation (ETL)
- Data Modeling
- Data Visualization

**DATA TRANSFORMATION**

The dataset comprises five CSV files, three-dimension tables, and two fact tables. The data was cleaned and transformed using Power Query in Power BI to ensure accuracy and consistency. Data cleaning steps involved;
- Correct data type for columns.
- Replaced incorrect dates with the correct date.

**DATA MODEL**

The Power BI data model consists of five tables:

dim_date: Full date information with day type (weekend/weekday), month, and week number.

dim_hotels: Hotel ID, property name, category (luxury/business), and city location.

dim_rooms: Room ID and room class.
fact_bookings: Booking information including booking dates, platforms, number of guests, revenue, check-in/out dates.
fact_aggregated_bookings: Successful bookings, hotel ID, and room capacity.
Dimension tables have a matching ID in the fact tables, creating a one-to-many relationship.
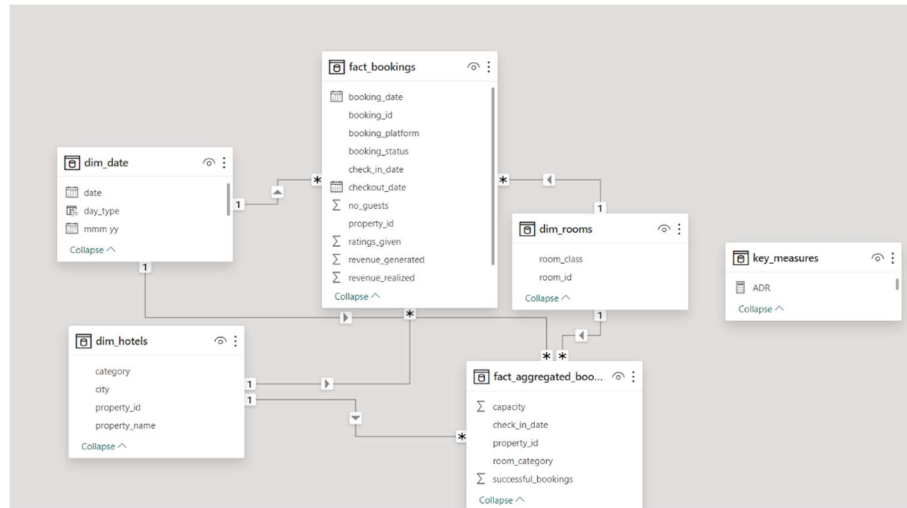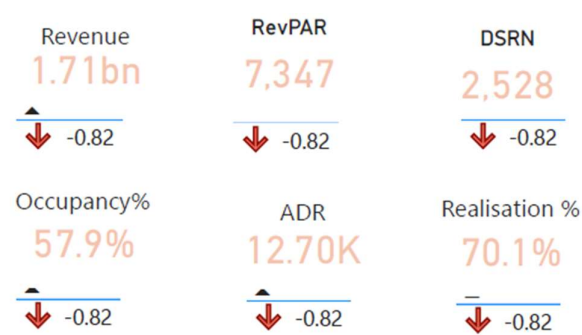


## ANALYSIS/VISUALIZATION
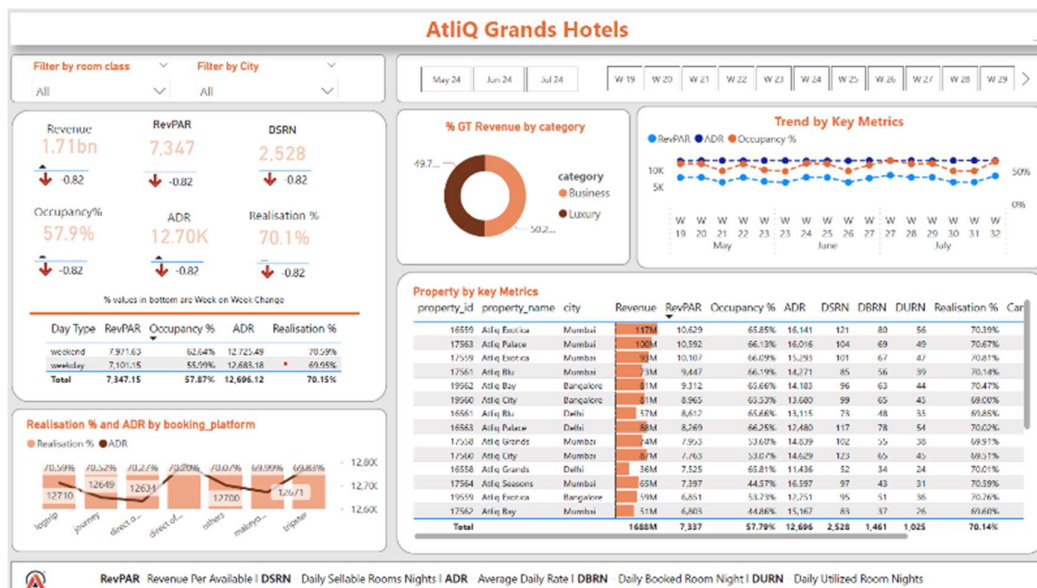
**KEY METRICS**:

Revenue: ₹1.69 billion (past 3 months)
Occupancy Rate: 57.79%
Average Daily Rate (ADR): ₹12,700
Revenue Per Available Room (RevPAR): ₹7,337

Weekly Trends:
Occupancy and RevPAR fluctuate, while ADR remains constant.
This aligns with RevPAR depending on occupancy.
Room Category Performance:
Luxury rooms contribute 61.62% of revenue, while Business rooms contribute 38.38%.

| Revenue | RevPAR | DSRN |
|---|---|---|
| 1.71bn | 7,347 | 2,528 |
| ▼ -0.82 | ▼ -0.82 | ▼ -0.82 |

| Occupancy% | ADR | Realisation % |
|---|---|---|
| 57.9% | 12.70K | 70.1% |
| ▼ -0.82 | ▼ -0.82 | ▼ -0.82 |

**PROPERTY PERFORMANCE**
AtliQ Seasons has the lowest revenue (₹65 million).
Booking Platform Performance:
Other platforms are the primary booking source (40% of revenue).
Direct offline bookings contribute the least (5%).
Direct bookings offer a higher ADR.
City Performance:
Mumbai contributes the most bookings, followed by Hyderabad, Bangalore, and Delhi.

**Property by key Metrics**

| city | Revenue | RevPAR | Occupancy % | ADR | DSRN | DBRN | DURN | Realisation % | Cancellation % | Average Rating |
|---|---|---|---|---|---|---|---|---|---|---|
| Mumbai | 117M | 10,629 | 65.85% | 16,141 | 121 | 80 | 56 | 70.39% | 24.63% | 4.32 |
| Mumbai | 100M | 10,592 | 66.13% | 16,016 | 104 | 69 | 49 | 70.67% | 24.38% | 4.29 |
| Mumbai | 93M | 10,107 | 66.09% | 15,293 | 101 | 67 | 47 | 70.81% | 24.04% | 4.32 |
| Mumbai | 73M | 9,447 | 66.19% | 14,271 | 85 | 56 | 39 | 70.14% | 24.41% | 4.30 |
| Bangalore | 81M | 9,312 | 65.66% | 14,183 | 96 | 63 | 44 | 70.47% | 24.29% | 4.28 |
| Bangalore | 81M | 8,965 | 65.53% | 13,680 | 99 | 65 | 45 | 69.00% | 26.46% | 4.28 |
| Delhi | 57M | 8,612 | 65.66% | 13,115 | 73 | 48 | 33 | 69.85% | 25.56% | 4.28 |
| Delhi | 88M | 8,269 | 66.25% | 12,480 | 117 | 78 | 54 | 70.02% | 25.19% | 4.27 |
| Mumbai | 74M | 7,953 | 53.60% | 14,839 | 102 | 55 | 38 | 69.91% | 25.67% | 3.05 |
| Mumbai | 87M | 7,763 | 53.07% | 14,629 | 123 | 65 | 45 | 69.51% | 25.12% | 3.04 |
| Delhi | 36M | 7,525 | 65.81% | 11,436 | 52 | 34 | 24 | 70.01% | 25.08% | 4.25 |
| Mumbai | 65M | 7,397 | 44.57% | 16,597 | 97 | 43 | 31 | 70.59% | 24.81% | 2.30 |
| Bangalore | 59M | 6,851 | 53.73% | 12,751 | 95 | 51 | 36 | 70.76% | 24.54% | 3.04 |
| Mumbai | 51M | 6,803 | 44.86% | 15,167 | 83 | 37 | 26 | 69.60% | 25.44% | 2.37 |
| | 1688M | 7,337 | 57.79% | 12,696 | 2,528 | 1,461 | 1,025 | 70.14% | 24.84% | 3.62 |

**KEY FINDINGS/INSIGHTS**
After analyzing the data, I was able to derive these insights:

Over the period of three months (May, June, and July), AtliQ Grands were able to generate a revenue of approximately 1.7 billion (1.69b). During this period, Revenue, ADR, occupancy, and RevPar increased from the latest previous week, except for realization% which decreased by 0.03%.

The overall average rating is 3.62. Customer satisfaction has improved over the past three months, with an average rating increase of 1.27%. Although some hotels have ratings lower than the average.

Weekends consistently exhibit higher occupancy rates than weekdays. There is no significant difference in ADR for weekdays and weekends. This shows that the hotel is using a flat pricing strategy.

Other travel platforms/channels are the primary booking source, generating 40% of total bookings and revenue. Direct offline booking contributes the least to bookings and revenue generation, with 5%.

The Average Daily (ADR) Rate is higher on direct offline (hotel premises) compared to other booking platforms.

The Luxury room category contributes the majority of revenue and bookings. Mumbai city contributes most of the revenue, followed by Hyderabad, Bangalore, and Delhi.

There is a correlation between revenue and average ratings, in that ratings with higher ratings tend to generate more revenue.


**RECOMMENDATIONS**
The rule of demand and supply and price elasticity is different for the travel, tourism, and hospitality industry. Therefore, the hotel should leverage dynamic pricing to increase revenue generation and increase prices for peak days and weekends.
Consider differential pricing strategies for their offline booking platforms by implementing targeted marketing campaigns/promotions to boost bookings and in turn increase revenue.

AtliQ Grands should pay more attention to customer reviews and ratings and focus on improving customer satisfaction further by addressing critical areas identified in customer reviews.
Explore opportunities to increase direct bookings through the hotel's website to reduce dependence on other online platforms.

**CONCLUSION**
The data analysis performed using Power BI has provided valuable insights into various aspects of hotel management for AtliQ Grands Hotel. The findings and recommendations can help optimize operations, enhance customer satisfaction, and drive revenue growth. Regular monitoring and analysis of key metrics will ensure continued success in the hotel.