Hospitality Analysis Dashboard

Overview

This project showcases an interactive Power BI dashboard created to analyze the performance of hospitality businesses. The goal is to provide data-driven insights into revenue trends, occupancy rates, booking patterns, and guest feedback to support better business decisions.

The dashboard includes the following pages:

1. **Home Page**
2. **Performance Overview**
3. **Revenue Analysis**
4. **Booking and Rating Analysis**

Dataset Description

The dataset follows a STAR SCHEMA structure with the following tables:

Dimension Tables

- **Dim Date:** Contains Date, mmm yy, week no, and day_type.
- **Dim Hotel:** Includes property_id, property_name, category, and city.
- **Dim Rooms:** Consists of room_id and room_class.

Fact Tables

- **Fact Aggregated Bookings:** Captures property_id, check_in_date, room_category, successful_bookings, and capacity.
- **Fact Bookings:** Includes booking_id, property_id, booking_date, check_in_date, checkout_date, no_guests, room_category, booking_platform, ratings_given, booking_status, revenue_generated, and revenue_realized.

Dashboard Breakdown

Home Page

This page serves as the landing page for intuitive navigation across the dashboard.

Performance Overview

This page highlights:

- Average RevPAR (₹7,337), with properties like Atliq Palace in Delhi performing well.
- Occupancy trends showing better performance on weekends (62.6%) compared to weekdays (55.9%).

- ADR insights, with an average of ₹12,695 and standout rates in Bangalore and Delhi.

Revenue Analysis

This page focuses on:

- Revenue breakdown by cities, room categories, and booking platforms.
- Identifying Bangalore as the highest revenue contributor (₹415M) and Delhi as an area for improvement (₹291M).
- Promoting direct online bookings due to the highest revenue realization rate of 70.57%.

Booking and Rating Analysis

This page provides insights into:

- Booking trends, cancellation rates, and no-show patterns. Bangalore showed the highest no-shows.
- Guest ratings, where Atliq Blu (4.25) and Atliq Bay (4.31) scored high, while Atliq Exotica (2.33) requires improvement.
- Feedback and opportunities to enhance guest satisfaction and reduce cancellations.

Insights and Suggestions

1. **Revenue Trends:** Bangalore generates the most revenue (₹415M), while focused efforts are needed in Delhi (₹291M).

   My suggestion = There is difference in revenue generated by cities so different programs like marketing campaigns can improve revenue in underperforming cities**.**

2. **Occupancy Rates:** The average occupancy rate across all properties was 57.8%, with weekends performing better at 62.6%.

   My suggestion = Hotels can offer discounts or promotions on weekdays to balance the gap.

3. **Booking Patterns:** Cancellation rates (24.8%) and no-shows impact revenue realization, highlighting areas for improvement.

   My suggestion = Hotels can offer targeted promotions to reduce cancellations.

4. **Guest Ratings:** Properties like Atliq Blu consistently scored high in guest satisfaction (4.25), while others such as Atliq Exotica scored lower (2.33).

   My suggestion = Insights from high-rated hotels can be used to improve experiences at low-rated hotels.

5. **Booking Platforms:** Direct online bookings offer the highest revenue realization (70.57%) and should be further promoted.

Key Learnings

1. Built an intuitive Power BI dashboard for better decision-making.
2. Modeled data efficiently using STAR SCHEMA.
3. Derived actionable insights to optimize revenue and improve guest experiences.
4. Enhanced data storytelling skills to communicate findings effectively.

Future Enhancements

1. Add real-time data for dynamic insights.
2. Integrate predictive models for forecasting trends.
3. Expand the dataset to analyze more cities and properties.

This project demonstrates the power of data visualization in driving impactful decisions in the hospitality industry.