**ITC Hotels Revenue Optimization**

ITC Hotels is a luxury hotel chain that operates multiple properties with diverse room categories and varying occupancy rates. The company wants to gain deeper insights into its overall financial performance, customer booking behavior, occupancy trends, and room category performance to optimize revenue generation, minimize cancellations, and enhance customer satisfaction. The goal of this project is to create an interactive, multi-page Power BI dashboard to provide stakeholders with real-time insights for decision-making.

Key Problem Areas to Address:

**Page 1: Financial Overview & Revenue Performance**  
Key Questions to Answer:

1. What is the total revenue generated by ITC Hotels, and how does it vary across different hotels and room categories?
2. What is the cumulative revenue growth over time?
3. How has the revenue grown month-over-month (MoM) and week-over-week (WoW)?
4. What are the average daily rate (ADR) and revenue per available room (RevPAR)?

KPIs and Metrics:

* Total Revenue
* Cumulative Revenue
* Month-over-Month (MoM) and Week-over-Week (WoW) Growth
* Moving Average of Revenue
* Average Daily Rate (ADR)
* Revenue per Available Room (RevPAR)

**Page 2: Occupancy & Capacity Analysis**  
Key Questions to Answer:

1. What is the occupancy rate for each hotel and room category?
2. How does occupancy fluctuate seasonally or over specific periods (e.g., weekends, holidays)?
3. What is the  occupancy growth (MoM and WoW)?
4. How does occupancy correlate with revenue and RevPAR?

KPIs and Metrics:

* Occupancy Rate

**Page 3: Room Category Performance & Booking Insights**  
Key Questions to Answer:

1. Which room categories generate the most revenue?
2. How do booking patterns (lead time, check-in dates) affect revenue and occupancy?
3. What is the average length of stay (ALOS) for each hotel and room type?
4. What is the room revenue trend (including running total and MoM/WoW growth)?

KPIs and Metrics:

* Average Length of Stay (ALOS)
* Booking Lead Time: Average time between booking and check-in.

**Page 4: Cancellations & Lost Revenue Analysis**  
Key Questions to Answer:

1. What is the cancellation rate for each hotel and room category?
2. How have cancellation trends changed over time (MoM/WoW)?
3. What is the lost revenue due to cancellations?
4. Are there any patterns in cancellations (e.g., specific room types, time of year)?

KPIs and Metrics:

* Cancellation Rate:
* Cumulative Cancellations
* Lost Revenue due to Cancellations:
* Cancellation Growth (WoW)

**Insights**

**Page 1: Financial Overview & Revenue Performance:**

**1) What is the total revenue generated by ITC Hotels, and how does it vary across different hotels and room categories ?**

**Total revenue** generated is **₹ 2.01 billion** (Two billion and ten million)

**Revenue room category/class wise :**

* Elite is at **1st** position with **₹658.95 million** revenue.
* Premium being at **2nd** position with **₹543.60** **million** revenue.
* Presidential being at **3rd** position with **₹441.46** **million** revenue.
* Standard being at **4th** position with **₹363.55 million** revenue.

**Revenue hotel wise :**

**Top :**

* Property id **16559** is at **1st** position with **₹138.70 million** revenue.
* Property id **17563** is at **2nd** position with **₹118.62 million** revenue.
* Property id **17559** is at **3rd** position with **₹109.70 million** revenue.

**Bottom:**

* Property id **16558** is at **last** position with **₹42.25 million** revenue.
* Property id **18563** is at last 2nd position with **₹53.13 million** revenue.
* Property id **18558** is at last 3rd position with **₹54.29 million** revenue.

**2) What is the cumulative revenue growth over time ?**

* Cumulative growth: **837.71 %**

**3) How has the revenue grown month-over-month (MoM) and week-over-week (WoW)?**

* **Month over month** growth: **50.29%**
* **Week over week** growth: **1390.83%**

**4) What are the average daily rate (ADR) and revenue per available room (RevPAR)?**

* **Revenue per available room** is **₹14,921.30.**
* **Average daily rate** is **₹8631.79.**

**Page 2: Occupancy & Capacity Analysis:**

1. **What is the occupancy rate for each hotel and room category?**

**Top hotels:**

* Property id **18560** is at **1st** position with **50.29%**.
* Property id **17559** is at **2nd** position with **50.23%**.
* Property id **17562** is at **2nd** position with **50.08%**.

**Bottom:**

* Property id **17562** is at **last** position with **33.43%**.
* Property id **17562** is at 2nd **last** position with **33.50%**.
* Property id **17562** is at 3rd **last** position with **33.56%**.

1. **How does occupancy fluctuate seasonally or over specific periods (e.g., weekends, holidays)?**

**Weekend:**

* In month of **May** there is **highest occupancy rate** with **56.10%**.
* In month of **June** there is **2nd position occupancy rate** with **56.01%**.
* In month of **July** there is **3rd position occupancy rate** with **54.73%**.

**Weekdays:**

* In month of **May** there is **highest occupancy rate** with **38.97%**.
* In month of **June** there is **2nd position occupancy rate** with **38.47%**.
* In month of **July** there is **3rd position occupancy rate** with **38.00%**.

1. **What is the  occupancy growth (MoM and WoW)?**

* **Month over Month** occupancy growth: **-0.12%**.
* **Week over Week** occupancy growth: **12.74%**.

1. **How does occupancy correlate with revenue and RevPAR?**

There is positive relativeship between occupancy rate with revenue and revpar , which means if occupancy rate goes is more than revenue and revpar is also more is going upside and vice-versa.

1. **Occupancy rate according to city?**

**Agra** have the highest occupancy rate with **49.83%**, on other hand **Hyderabad** has the lowest occupancy rate with **40.61%** we need to focus here and try to give discount on weekends.

1. **Occupancy rate according to room class?**

**Presidential room class** tends to have **Highest occupancy rate** with **44.75%** and on other hand **Elite room class** tends to have **Lowest occupancy rate** with 43.23%.

**Page 3: Room Category Performance & Booking Insights**

1. **Which room categories generate the most revenue?**

**Elite** room class generates **Highest revenue** with **₹658.95 million** and **Standard** room class generates **Lowest revenue** with **₹363.55 million**.

1. **How do booking patterns (lead time, check-in dates) affect revenue and occupancy?**

**Weekdays:**

* **Last minute** (booking done before 0-2 days of **check-in** date) **₹618.78 million**.
* **Short** (booking done before 3-7 days of **check-in** date) **₹566.37 million**.
* **Medium** (booking done before 8-30 days of **check-in** date) **₹73.92 million**.

**Weekend:**

* **Last minute** (booking done before 0-2 days of **check-in** date) **₹366.63 million**.
* **Short** (booking done before 3-7 days of **check-in** date) **₹337.08 million**.
* **Medium** (booking done before 8-30 days of **check-in** date) **₹44.77 million**.

1. **What is the average length of stay (ALOS) for each hotel and room type?**

**According to room class :**

* **Average LOS** for **Elite room class** is **2.4 days**.
* **Average LOS** for **Standard room class** is **2.4 days**.
* **Average LOS** for **Premium room class** is **2.4 days**.
* **Average LOS** for **Presidential room class** is **2.3 days**.

**Page 4: Cancellations & Lost Revenue Analysis:**

1. **What is the cancellation rate for each hotel and room category?**

**According to room class:**

* **Elite** has the **highest cancellation rate** with **24.96%**.
* **Premium** has the 2nd **highest cancellation rate** with **24.88%**.
* **Standard** has the 3rd **highest cancellation rate** with **24.79%**.
* **Presidential** has the **4th Highest cancellation rate** with **24.44%**.

1. **How have cancellation trends changed over time (MoM/WoW)?**

**According to Month:**

* **June** holds **1st** position with **cancellation rate** of **25.09%**.
* **May** holds **2nd** position with **cancellation rate** of **24.95%**.
* **July** holds **3rd** position with **cancellation rate** of **24.46%**.

1. **What is the lost revenue due to cancellations?**

**Lost revenue due to cancellation** is **₹298.77 million.**

1. **Are there any patterns in cancellations (e.g., specific room types, time of year)?**

**Pune** holds the **highest cancellation rate** with **25.53%,** may be due to **states ongoing local language tension**.