



ITC HOTELS

POWER BI-DRIVEN REVENUE & BOOKING
ANALYTICS



PROJECT ROADMAP: FROM DATA TO DECISIONS

1. Project Overview
2. Data Understanding
3. Problem Statement and Focus Areas .
4. Financial Overview & Revenue Performance Dashboard
 - Insights and conclusions
5. Occupancy & Capacity Analysis Dashboard
 - Insights and conclusions
6. Room Category Performance & Booking Insights Dashboard
 - Insights and conclusions
7. Cancellations & Lost Revenue Analysis Dashboard
 - Insights and conclusions





PROJECT OVERVIEW

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.

DATASET OVERVIEW



DATASET OVERVIEW

This dataset combines property master data, room classification, booking transactions, and occupancy/capacity records to provide a complete view of hotel performance. It enables analysis of revenue trends, booking behavior (lead time, LOS, platform), occupancy patterns, and room-category contribution. The model supports identifying demand fluctuations and revenue leakage through cancellations/refunds, powering a unified Power BI dashboard for insights and decision-making.



TABLES

1.Hotels

- Contains property-level details such as property_id, property_name, city, and category.
- Used to segment and compare performance across hotels, cities, and categories.

2.Rooms

- Defines room structure using room_id and room_class.
- Enables room mix and category-level performance analysis across properties.

3.Bookings

- Transaction table capturing booking lifecycle and outcomes: booking_id, dates, booking_platform, booking_status, LOS, and revenue fields.
- Supports revenue, channel/platform performance, customer behavior, and cancellation/refund analysis.

4.Occupancy

- Operational table tracking utilization with check_in_date, capacity, and successful_bookings by property_id and room_category.
- Used to calculate occupancy trends, capacity utilization, and demand patterns by room category.

DATASET OVERVIEW

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TABLES

1.Hotels (Dimension)

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2.Rooms (Dimension)

- Defines room structure using room_id and room_class.
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3.Bookings (Fact)

- Transaction table capturing booking lifecycle and outcomes: booking_id, dates, booking_platform, booking_status, LOS, and revenue fields.
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4.Occupancy (Fact)

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DATASET OVERVIEW



PROBLEM STATEMENT AND FOCUS AREAS

1. Room Category Performance & Booking Insights

- Identify which room categories generate the highest revenue and how their contribution varies across time.
- Booking Lead Time Analysis: Measure the average time between booking date and check-in to understand planning behavior and demand patterns.
- Average Length of Stay (ALOS): Evaluate typical stay duration by room category to assess utilization and revenue potential.
- Room Revenue Trend Monitoring: Track room revenue over time, including running total and MoM/WoW growth, to capture seasonality and performance shifts.

2. Cancellations & Lost Revenue Analysis

- Cancellation Rate by Segment: Calculate cancellation rate for each hotel and room category to identify high-risk segments.
- Cancellation Trend Analysis (MoM/WoW): Track how cancellations change over time to spot spikes, seasonality, and recurring patterns.
- Lost Revenue Quantification: Estimate revenue loss due to cancellations to measure leakage and prioritize corrective actions.
- Cancellation Pattern Detection: Analyze cancellations by room type and time of year to uncover drivers and predict future risk.



PROBLEM STATEMENT AND FOCUS AREAS

3. Occupancy & Capacity Analysis

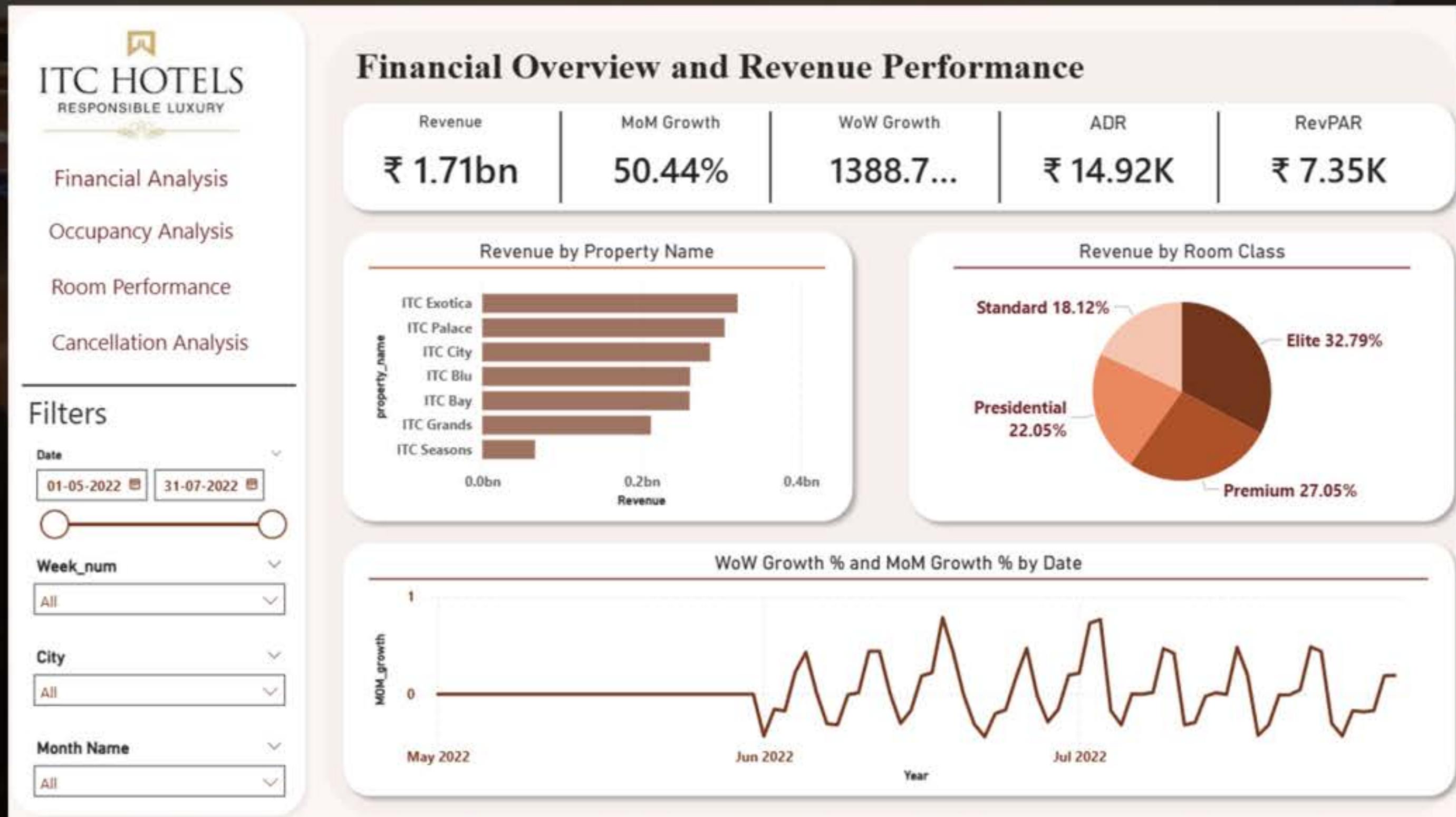
- Occupancy Rate by Segment: Calculate occupancy rate for each hotel and room category to evaluate utilization and demand strength.
- Seasonality & Period-Based Fluctuations: Analyze occupancy changes across seasons and specific periods (weekends, holidays) to identify peak and low-demand windows.
- Occupancy Growth Tracking (MoM/WoW): Measure month-over-month and week-over-week occupancy growth to monitor performance shifts and short-term trends.
- Occupancy vs. Revenue/RevPAR Relationship: Assess how occupancy correlates with revenue and RevPAR to understand the balance between volume, pricing, and profitability.

4. Financial Overview & Revenue Performance

- Revenue Performance by Segment: Measure total revenue generated and analyze how it varies across hotels and room categories to identify top and under-performing segments.
- Cumulative Revenue Growth: Track cumulative revenue over time to understand overall performance momentum and long-term growth.
- Revenue Trend Tracking (MoM/WoW): Evaluate month-over-month and week-over-week revenue growth to capture short-term changes and seasonality.
- Rate & Profitability Metrics: Calculate ADR and RevPAR to assess pricing efficiency and revenue productivity per available room.



FINANCIAL OVERVIEW & REVENUE PERFORMANCE DASHBOARD

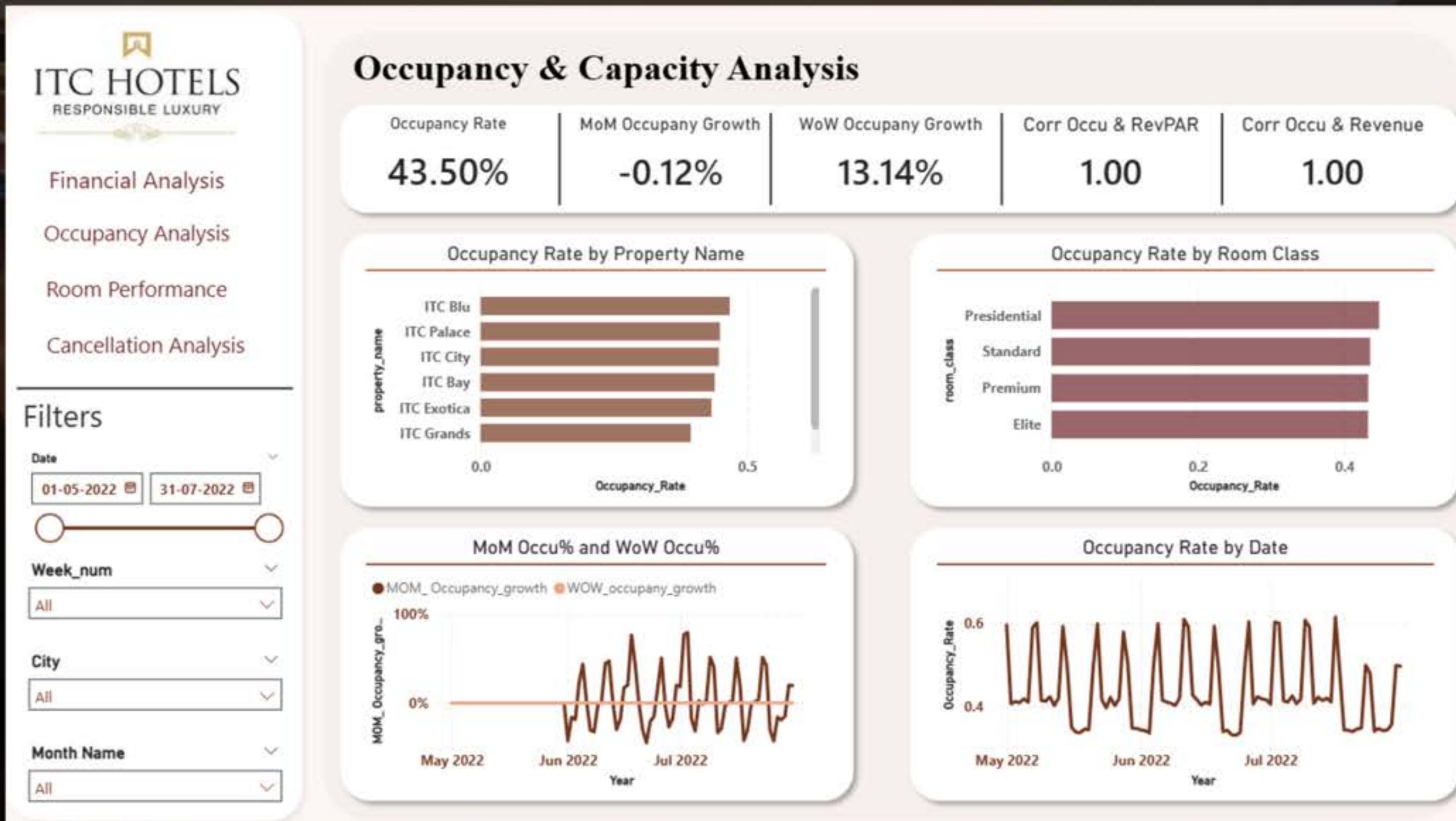


KEY INSIGHTS & CONCLUSIONS: FINANCIAL OVERVIEW AND REVENUE PERFORMANCE

- Strong topline performance: Total revenue stands at ₹1.71B, indicating solid overall business volume for the selected period.
- Growth momentum is positive: MoM growth is +50.44%, showing a clear month-level uplift in revenue performance.
- WoW growth is highly volatile: Week-over-week growth shows extreme spikes, suggesting sharp demand swings (or a low-base effect in earlier weeks) and the need for closer week-level monitoring.
- Top revenue-contributing properties: ITC Exotica leads revenue contribution, followed by ITC Palace and ITC City. Properties at the lower end (e.g., ITC Seasons) contribute comparatively less and may need targeted demand/promo strategies.
- Room-class revenue concentration: Revenue is driven primarily by Elite (32.79%) and Premium (27.05%) categories, together contributing ~60% of total room-class revenue. Presidential (22.05%) adds strong premium contribution, while Standard (18.12%) is the smallest share.
- Pricing & productivity are healthy: ADR = ₹14.92K and RevPAR = ₹7.35K, indicating good rate realization with further potential to improve RevPAR through better utilization and/or rate optimization.
- Trend pattern indicates instability: The growth trend line shows frequent peaks and dips across weeks, highlighting demand variability and possible sensitivity to weekends/events/seasonality.



OCCUPANCY & CAPACITY ANALYSIS DASHBOARD



KEY INSIGHTS & CONCLUSIONS: OCCUPANCY AND CAPACITY ANALYSIS

- Moderate overall occupancy: Portfolio occupancy is 43.50%, indicating meaningful available capacity and scope to improve utilization through demand stimulation and pricing tactics.
- Mixed growth signals: MoM occupancy growth is slightly negative (-0.12%), while WoW growth is positive (+13.14%), suggesting short-term recovery but softer month-level momentum.
- Occupancy varies by property: Some properties (e.g., ITC Blu / ITC Palace / ITC City) show relatively higher occupancy compared to others (e.g., ITC Grands), highlighting opportunities for targeted property-level actions.
- Room-class occupancy is fairly consistent: Occupancy across room classes is broadly similar, with Presidential marginally higher—suggesting demand is not heavily skewed by category and capacity optimization can be applied across classes.
- Occupancy is tightly linked to outcomes: The dashboard shows a very strong correlation between occupancy and both RevPAR and revenue, reinforcing occupancy as a key lever to drive overall financial performance.



ROOM CATEGORY PERFORMANCE & BOOKING INSIGHTS DASHBOARD

ITC HOTELS
RESPONSIBLE LUXURY

Room Category Performance & Booking Insights

ALOS: 2.37 | Booking Lead Time: 3.71 | MoM Growth: 50.44% | WoW Growth: 1388.7%

Rooms Revenue by Date

Rooms Revenue by Date

Revenue

30M

20M

10M

May 2022 Jun 2022 Jul 2022

Date

Revenue by Room Class

Revenue

0.5bn

0.0bn

Elite Premium Presidential Standard

room_class

ALOS by Each City, Hotel and Room Type

room_class

● Elite ● Premium ● Presidential ● Standard

ALOS

City

Bangal... Delhi Goa Mumbai Agra Delhi Goa Pune Delhi Hyder... Mumbai Pune Agra Bangal... Hyderabad Mumbai Bengal... Delhi Hyderabad Mumbai Bengal... Delhi Hyderabad Mumbai Bengal... Mumbai Mumbai Bengal... Mumbai

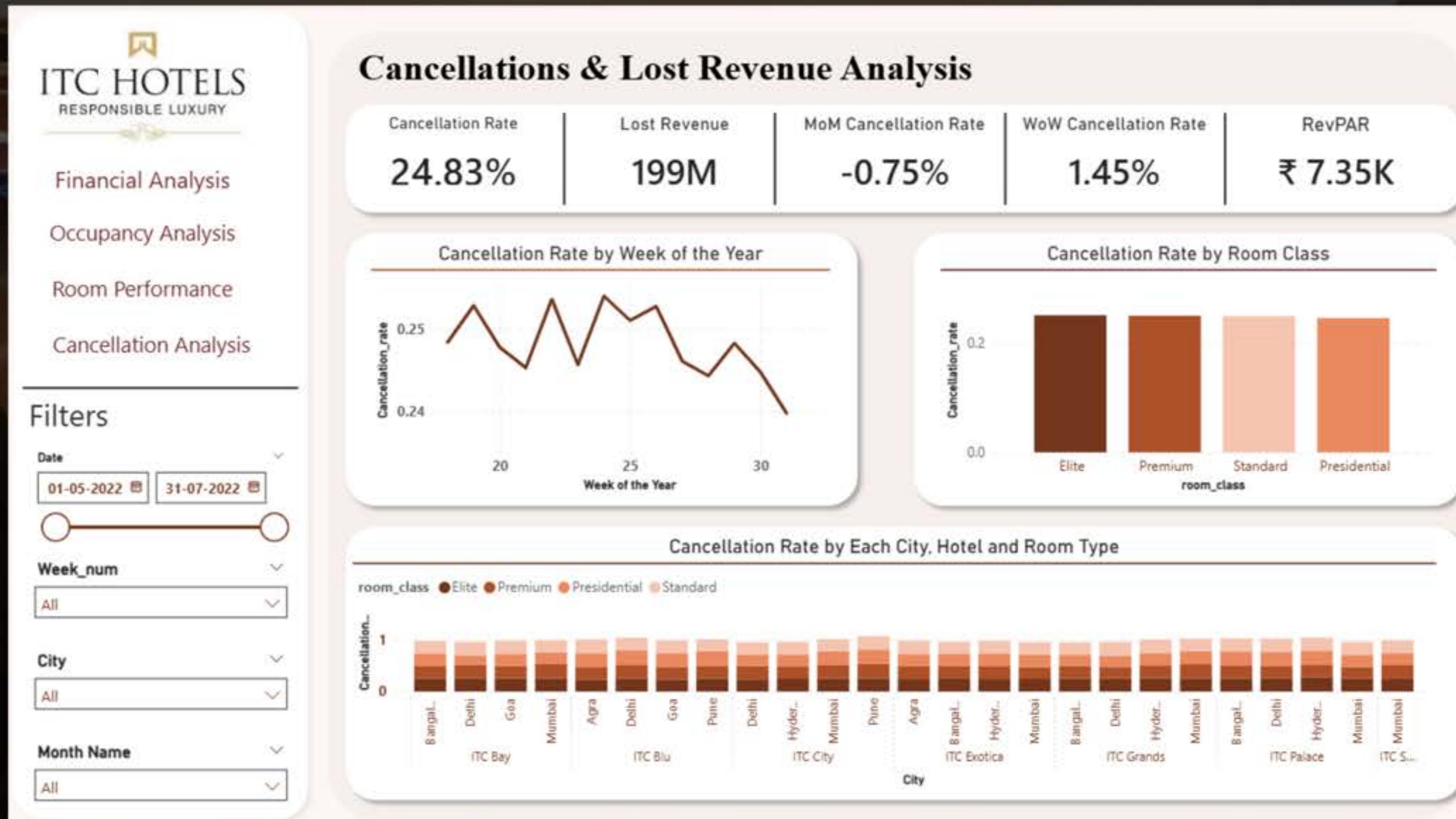
City



KEY INSIGHTS AND CONCLUSIONS: ROOM CATEGORY PERFORMANCE & BOOKING INSIGHTS

- Guest stay patterns are short: ALOS = 2.37 days indicates predominantly short stays, creating an opportunity to boost revenue via LOS-based offers (e.g., "stay 3 pay 2", bundled packages).
- Bookings are largely near-term: Avg. booking lead time = 3.71 days suggests a short booking window and higher dependence on last-minute demand—useful for planning dynamic pricing and short-horizon promotions.
- Room revenue is premium-led: Elite is the highest revenue-generating room class, followed by Premium and Presidential, while Standard contributes the least—premium categories remain the primary lever for revenue optimization.
- Growth is strong but volatile: MoM growth is +50.44%, while WoW growth shows extreme spikes, indicating week-to-week instability (seasonality/events/low-base effect) and the need for weekly pacing checks.
- ALOS differs by location/property mix: ALOS varies across cities and properties, implying different guest purposes and demand profiles—room/category strategies should be property-specific (business vs leisure, weekday vs weekend).

CANCELLATIONS & LOST REVENUE ANALYSIS DASHBOARD



KEY INSIGHTS & CONCLUSIONS: CANCELLATIONS & LOST REVENUE ANALYSIS

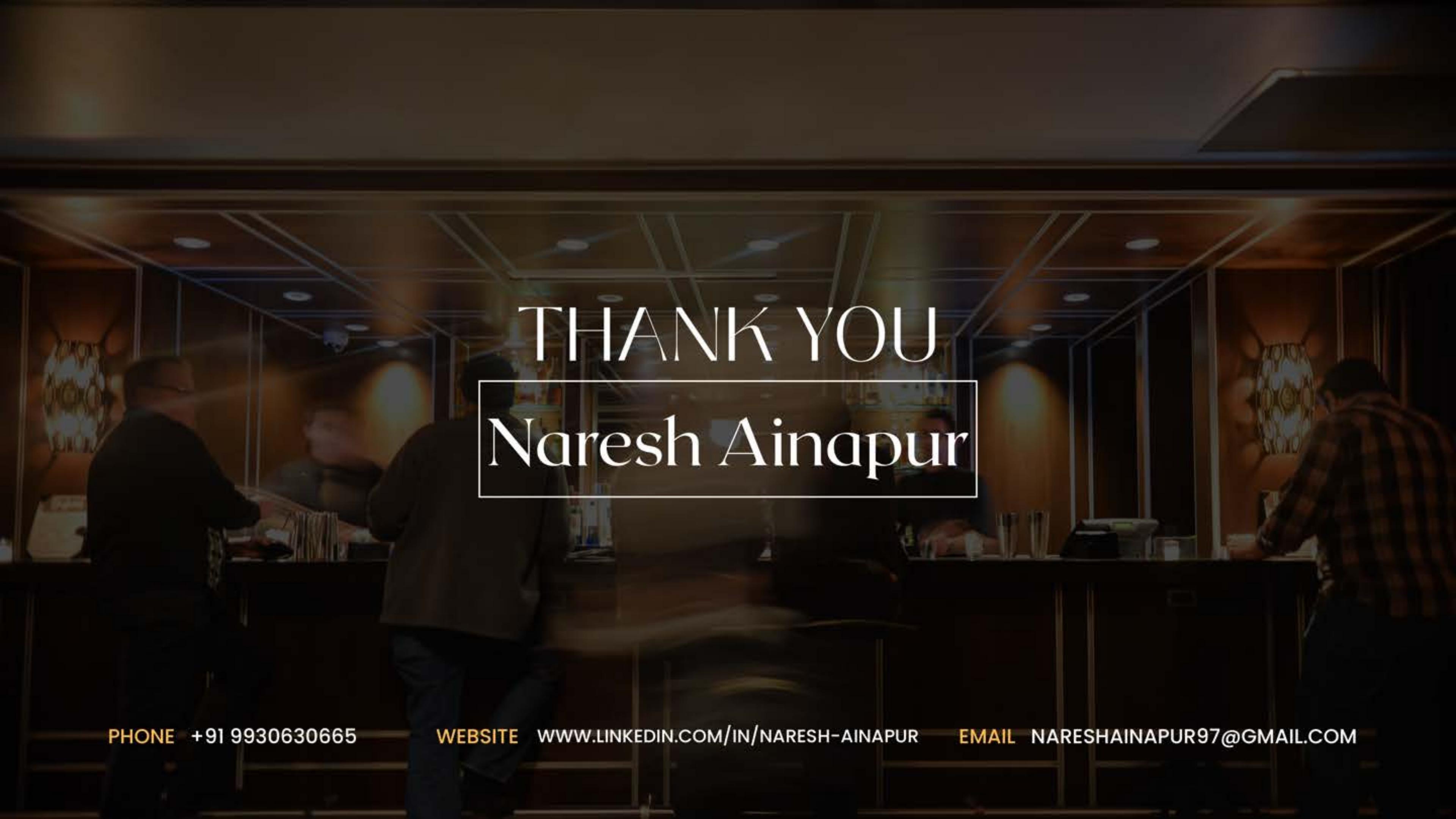
- High cancellation exposure: Overall cancellation rate is 24.83%, indicating a significant booking drop-off that can materially impact utilization and revenue.
- Meaningful revenue leakage: Lost revenue is ~199M, highlighting cancellations as a major contributor to revenue erosion and a priority area for control measures.
- Trend signals are mixed: MoM cancellation rate is slightly down (-0.75%) suggesting marginal improvement, while WoW is up (+1.45%), showing short-term volatility and the need for tighter weekly monitoring.
- Cancellations are consistent across room classes: Cancellation rates across Elite, Premium, Standard, and Presidential are broadly similar, implying the issue is systemic (policy/channel/behavior driven) rather than limited to one category.
- Week-level variation exists: The weekly trend line shows fluctuations across weeks, suggesting possible seasonality/event effects—targeted interventions should be activated during higher-risk weeks (e.g., stricter policies, confirmations, limited free-cancel windows).



INSIGHTS AND CONCLUSIONS



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THANK YOU
Naresh Ainapur

PHONE +91 9930630665

WEBSITE [WWW.LINKEDIN.COM/IN/NARESH-AINAPUR](https://www.linkedin.com/in/naresh-ainapur) EMAIL NARESHAINAPUR97@GMAIL.COM



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ACCOMMODATIONS

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SUITES

VILLAS

SMART ROOMS

SIGNATURE RESTAURANTS



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CULINARY EXCELLENCE



UNIQUE
OFFERINGS

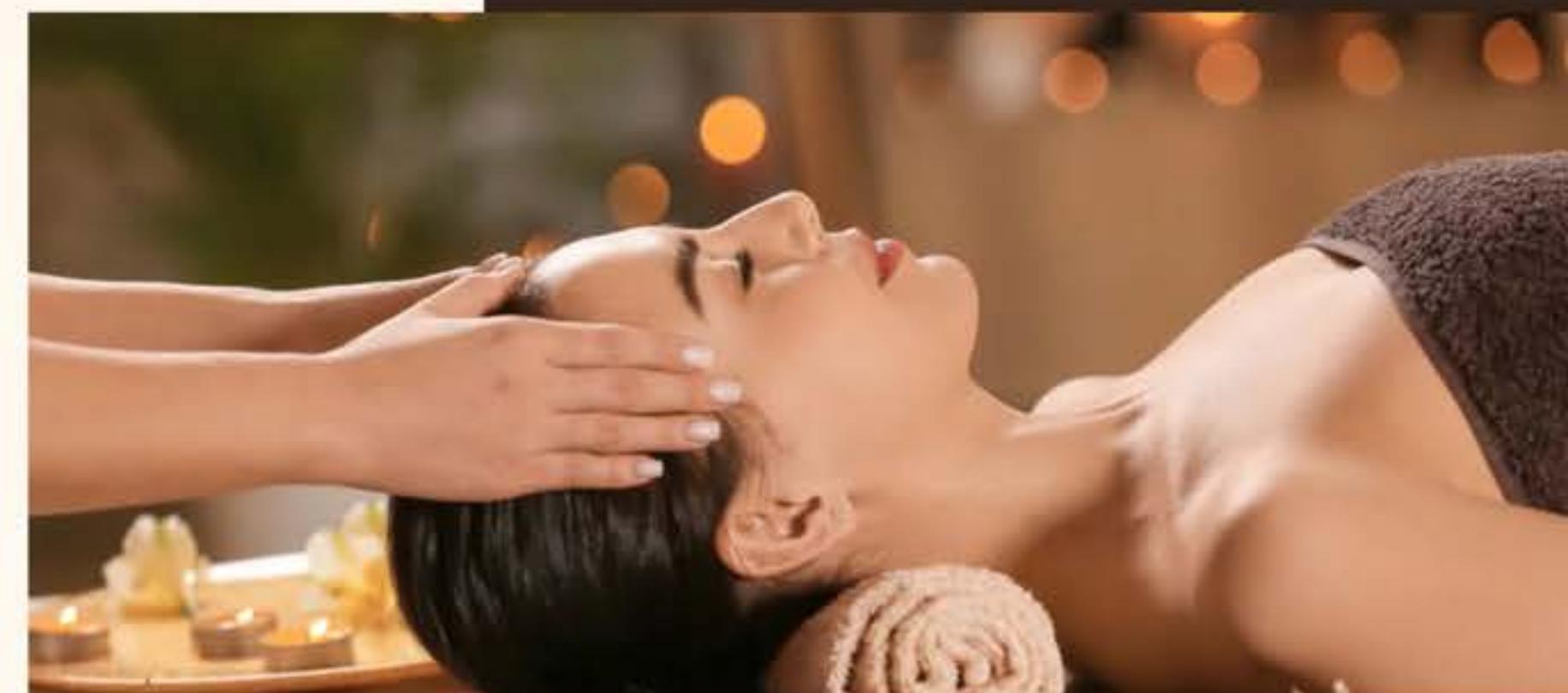


WELLNESS & RECREATION

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SPA & MESSAGE



PRIVATE EXPERIENCES

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CLIENTELE & PRIVACY

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TARGET AUDIENCE



DISCRETION





SUSTAINABILITY & RESPONSIBILITY

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AWARDS & RECOGNITION



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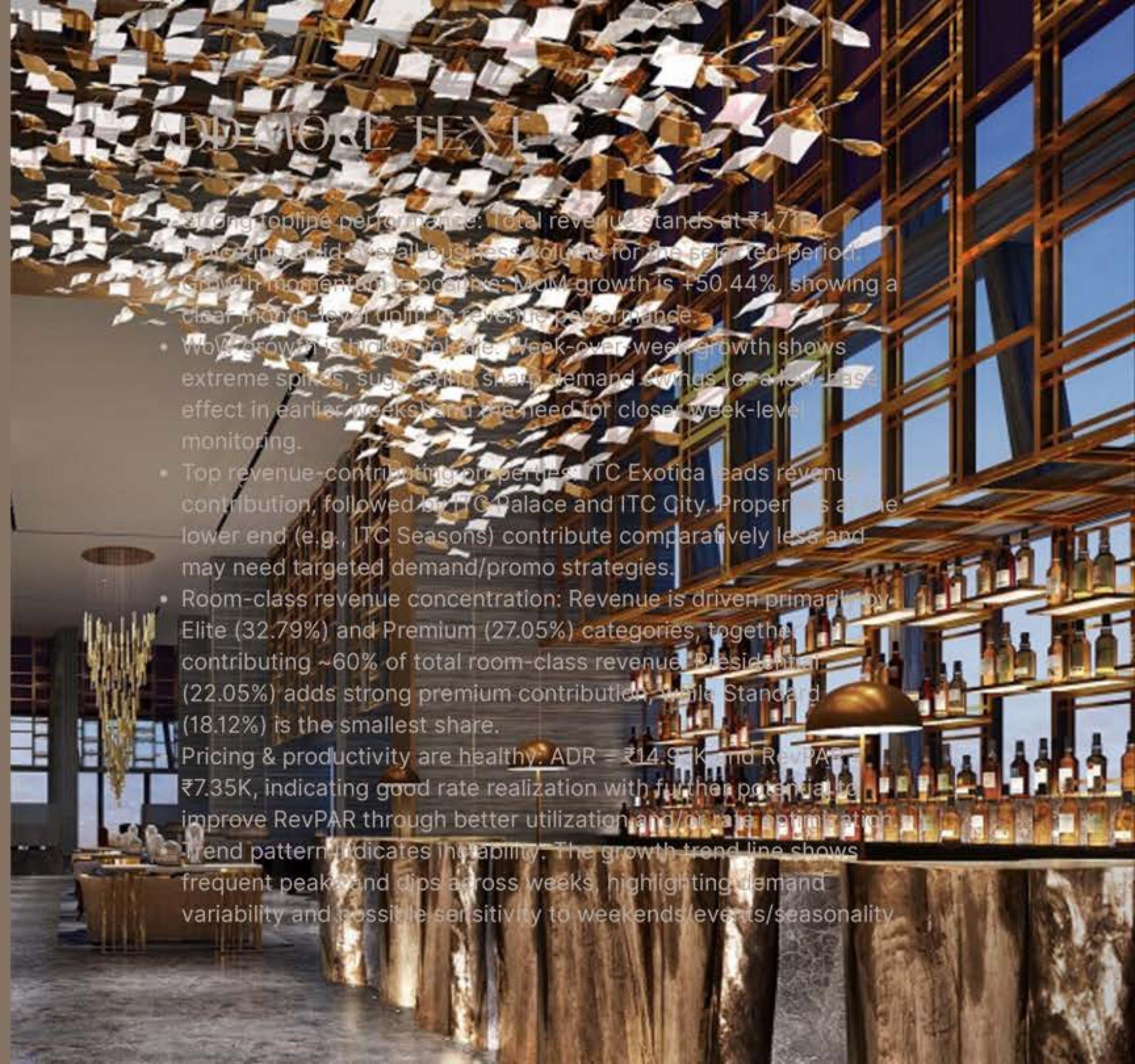


ACCOLADES



MEDIA FEATURES

INSIGHTS AND CONCLUSIONS



DATASET OVERVIEW



INFINITY POOL

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HISTORIC BUILDING

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