

Real Estate Market Analysis Dashboard in Power BI

OBJECTIVE: Sunrise Infra Properties Pvt. Ltd. aims to gain deep insights into the domestic and commercial property market trends across multiple cities in India over the past decade. The CEO requires a strategic dashboard that provides actionable insights into market trends, pricing patterns, dealer performance, and investment opportunities.

PROJECT WORKFLOW:

1. DATA IMPORT & PREPARATION

- Imported datasets into Power BI.
- Used Power Query for transformation:
 - Verified and corrected column headers.
 - Set appropriate data types.
 - Removed missing values and empty cells.
 - Eliminated unnecessary columns and handled 1/3rd empty rows in columns.
 - Created a deduplicated table using grouping and indexing.
- Established relationships between tables following a **star schema**.
- Created a **Date Master Table** with Calendar Year and Financial Year.

2. DATASET OVERVIEW:

- **Real_Estate_fact:** Core table containing transaction data such as locality, area, flat type, number of rooms, furnishing status, facing direction, sale price, and price per square foot.
- **Propertytype_dim:** Classification of properties into Residential Apartment, Independent House/Villa, and Commercial Space.
- **City_dim:** Contains city-level details to facilitate location-based analysis.
- **State_dim:** Provides standardized state-level geographic data for regional insights.
- **Dealer_dim:** Newly created dimension table storing dealer details, previously part of the fact table.

3. DASHBOARD DEVELOPMENT:

- Designed the dashboard using:
 - **KPIs & Measures:** Total sales, price trends, dealer commissions (now calculated as a measure), average price per square foot, etc.
 - **Visualizations:** Bar charts, line graphs, maps, and heatmaps to analyze trends and patterns.
 - **Interactive Components:** Buttons and slicers for dynamic filtering.

4. KEY INSIGHTS DERIVED:

- **Market Trends:** Identified real estate growth patterns over the past 10 years.
 - **Pricing Analysis:** Comparative analysis of pricing trends across cities and states.
 - **Dealer Performance:** Evaluated dealer contributions to total sales and commissions (now handled as a measure).
 - **Investment Opportunities:** Highlighted profitable regions and property types based on historical data.
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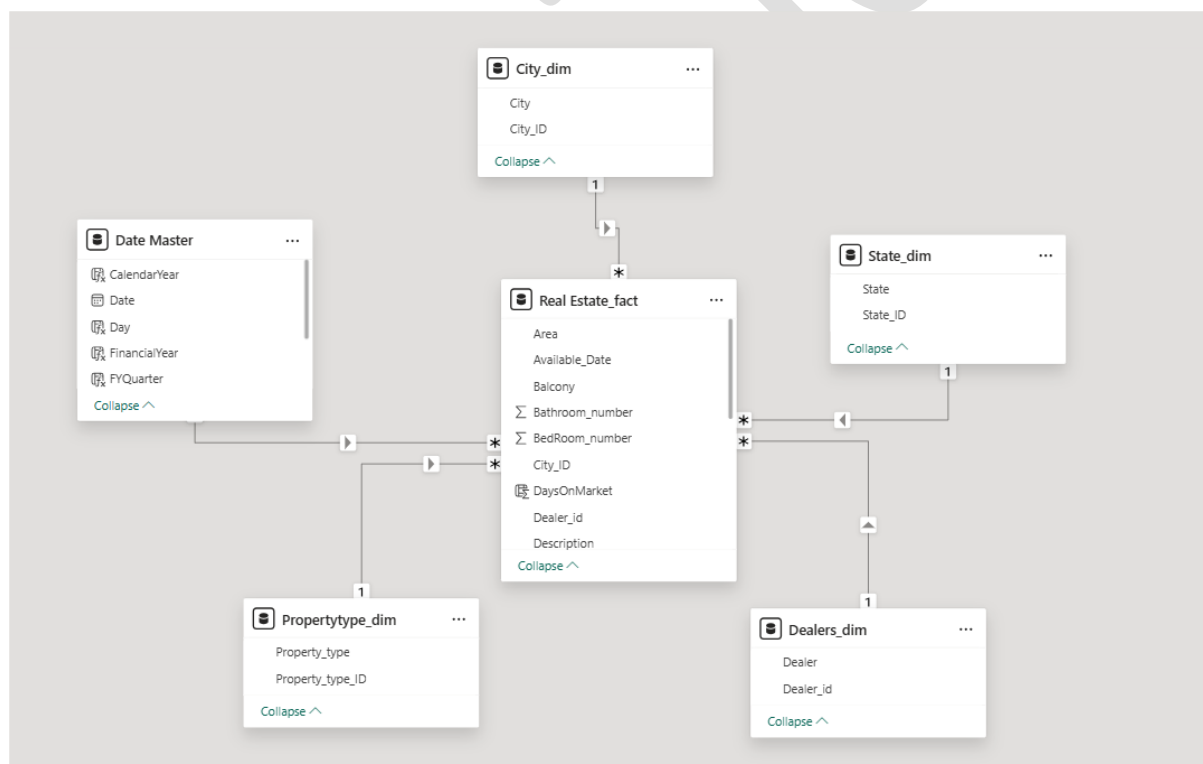
CONCLUSION: The Power BI dashboard empowers Sunrise Infra Properties Pvt. Ltd. with data-driven insights for strategic decision-making. By analyzing market trends, pricing, and dealer performance, the company can optimize sales, identify high-profit markets, and enhance customer engagement.

TOOLS USED: Power BI, Power Query, DAX, Data Modeling

FUTURE ENHANCEMENTS:

- Integration of live data updates.
- Advanced predictive analytics using AI/ML for real estate forecasting.
- Incorporation of customer sentiment analysis from reviews and feedback.

MODEL VIEW



DASHBOARDS

