

Luxury Housing Sales Analysis – Bangalore

Market Trends, Builder Performance & Buyer Behavior

 PYTHON

 SQL (MYSQL)

 TABLEAU PUBLIC



Business Objective

Booking Trends

Track temporal patterns in luxury housing demand across quarters and micro-markets

Builder Performance

Identify top-performing builders and analyze their market positioning strategies

Buyer Behavior

Understand decision drivers and sales channel effectiveness in luxury segment

Conversion Factors

Evaluate key variables influencing booking success rates and deal closures

This analysis converts raw housing transaction data into actionable insights that help stakeholders understand demand patterns, market performance drivers, and the key factors influencing buyer decisions in Bangalore's competitive luxury real estate market.

Dataset Overview



Scale & Scope

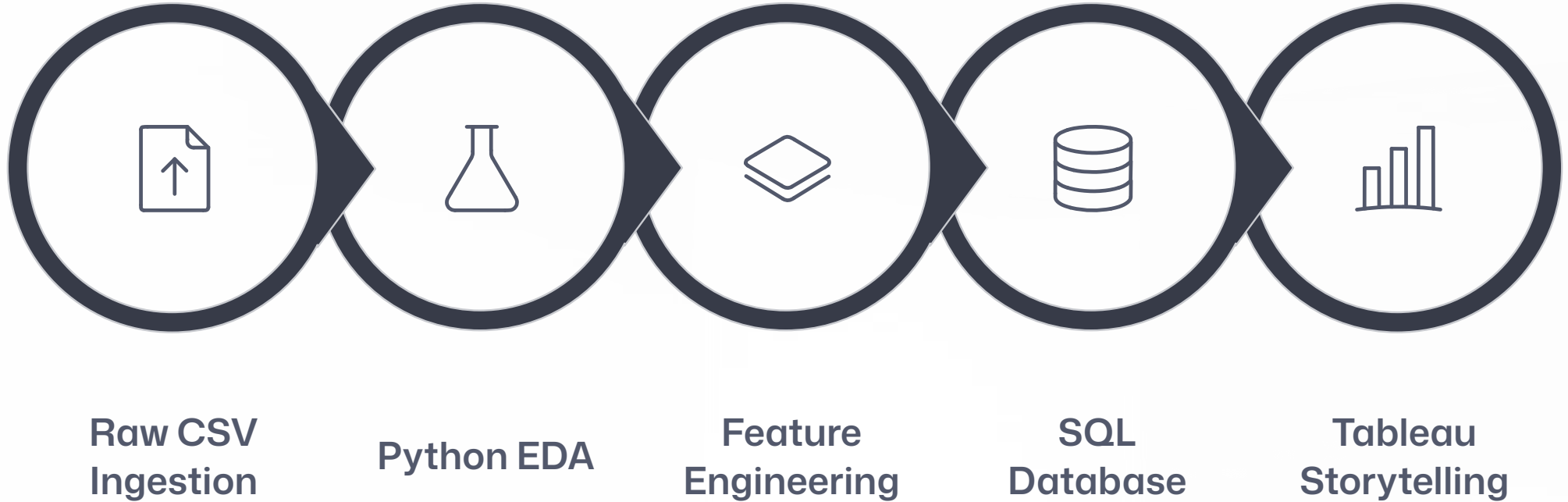
100,000+ luxury housing records representing comprehensive booking outcomes across Bangalore's premium real estate market

Key Dimensions

- **Property:** Builder, Micro-Market, Configuration, Amenity Score
- **Transaction:** Booking Status, Booking Date, Ticket Price
- **Channel:** Buyer Type, Sales Channel, Possession Status

The dataset captures luxury housing listings and their booking outcomes across Bangalore's diverse micro-markets, enabling comprehensive analysis of market dynamics.

End-to-End Project Flow



This project follows a structured analytics lifecycle aligned with enterprise data workflows, ensuring data quality, analytical rigor, and business-focused insights at every stage of the pipeline.

Tools Used



Python

Exploratory data analysis, data cleaning, missing value treatment, outlier detection, and feature engineering for derived metrics



MySQL

Data storage, business logic implementation, analytical view creation, and query optimization for consistent reporting



Tableau Public

Interactive visualization, dashboard creation, and business-focused storytelling to answer key stakeholder questions



VS Code

Code organization, version control, documentation, and project structure management throughout the development lifecycle

SQL Design Strategy

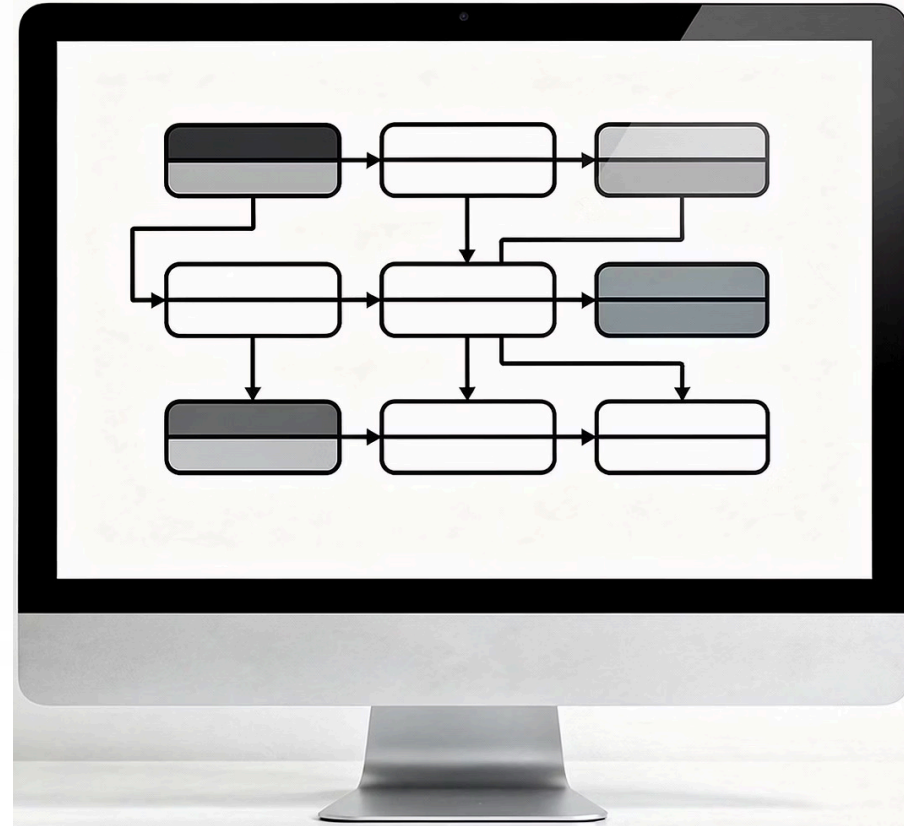
Base Table

`luxury_housing_final` – Clean, validated data with all transformations applied

Analytical Views

- `vw_pricing_insights` – Builder revenue and pricing metrics
- `vw_booking_behavior` – Conversion rates by segment
- `vw_locality_conversion` – Geographic performance analysis

Instead of pushing complex logic into Tableau, all heavy transformations and business calculations were handled in SQL for clarity, consistency, and reusability across reporting layers.



Visualization Strategy

01

Tableau as Power BI Alternative

Selected for accessibility and public sharing capabilities

02

One Worksheet Per Question

Each view answers a specific business question

03

SQL-Driven Metrics

All calculations defined in database views

04

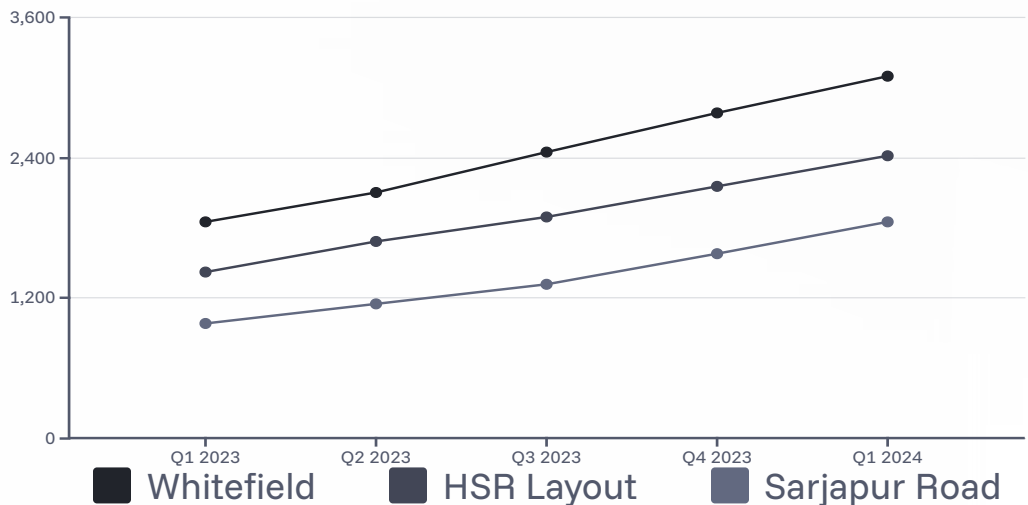
No New Logic in Viz Layer

Visualization strictly for presentation and exploration

Design Philosophy

Tableau is used strictly for answering predefined business questions. By keeping all metric definitions and transformations in SQL, we ensure consistency across reports and make the analytical logic transparent and maintainable.

Market Trends – Booking Over Time



Temporal Patterns

This visualization reveals how luxury housing bookings have evolved quarter by quarter across Bangalore's key micro-markets.

Key observations: Whitefield shows consistent upward trajectory, while HSR Layout demonstrates seasonal fluctuations. Sarjapur Road exhibits steady growth but at a lower baseline.

Understanding these temporal patterns helps builders and investors time project launches and marketing campaigns for maximum impact.

Builder Performance Analysis

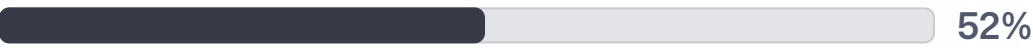
Revenue Leaders

This analysis identifies which builders dominate the luxury segment and whether their success stems from high-volume sales or premium pricing strategies.



Prestige Group

Market share by ticket sales



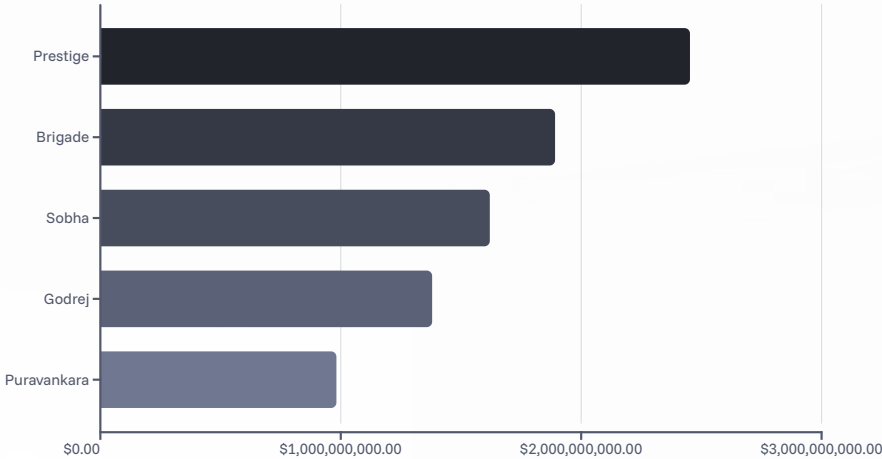
Brigade Group

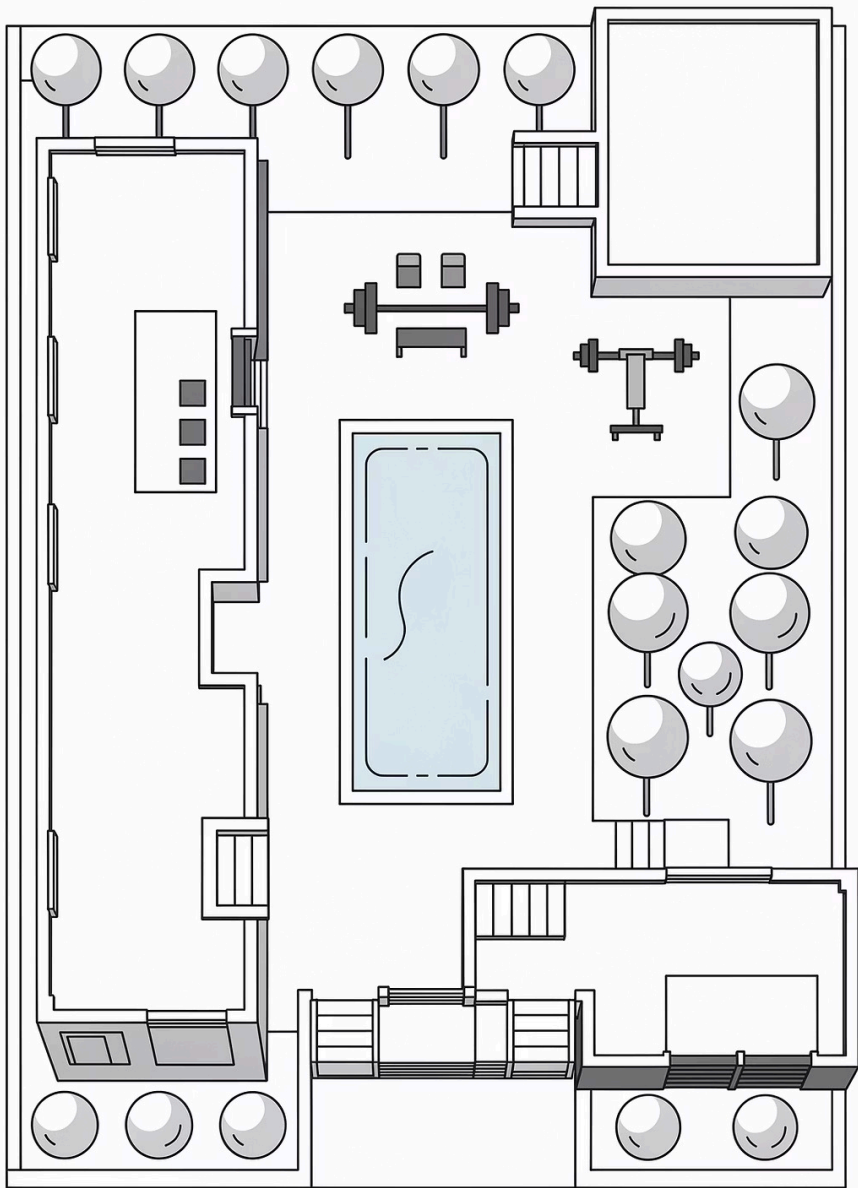
Conversion rate achievement



Sobha Limited

Premium pricing success





Amenity Score vs Booking Success

This scatter analysis explores whether higher amenity scores actually translate into improved booking conversion rates across luxury projects.

High Score, High Conversion

Projects with amenity scores above 8.5 show 15-20% higher conversion rates

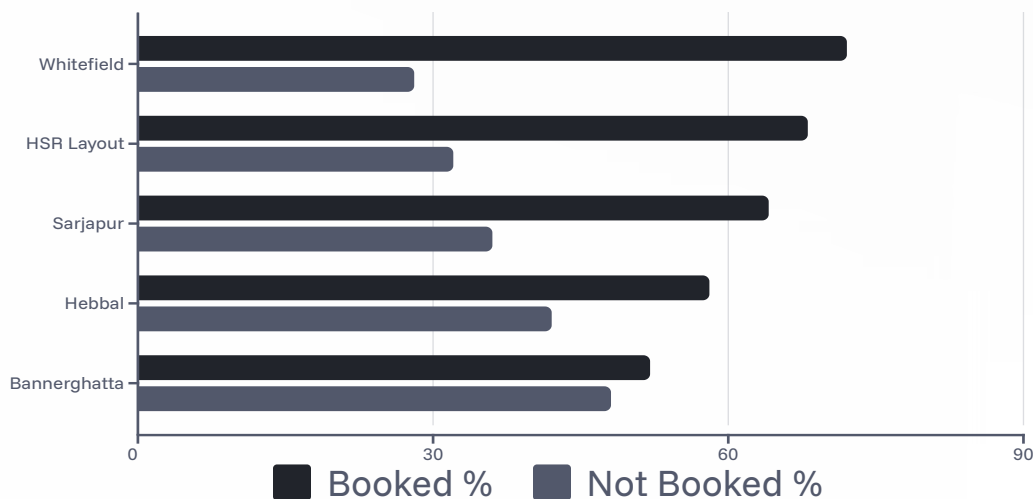
Diminishing Returns

Beyond score of 9.0, additional amenities show minimal impact on booking decisions

Location Matters More

Prime micro-markets convert well even with moderate amenity scores of 7.0-8.0

Booking Conversion by Micro-Market



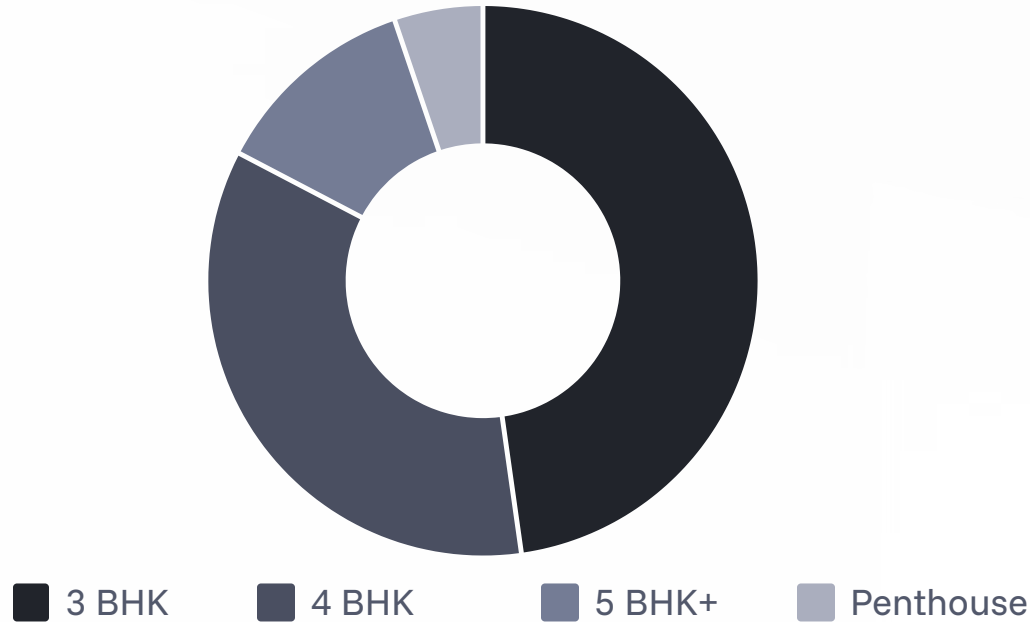
Geographic Performance

This analysis highlights which Bangalore locations convert buyer interest into actual bookings most effectively.

Top performers: Whitefield and HSR Layout lead with 68-72% conversion rates, driven by infrastructure development and IT corridor proximity.

Opportunity zones: Hebbal and Bannerghatta show lower conversion despite strong project pipelines, suggesting pricing or positioning challenges.

Configuration Demand Analysis



Unit Type Preferences

This breakdown reveals which housing configurations dominate demand in Bangalore's luxury segment.

3 BHK dominance: Nearly half of all bookings, appealing to nuclear families and young professionals seeking luxury within manageable budgets.

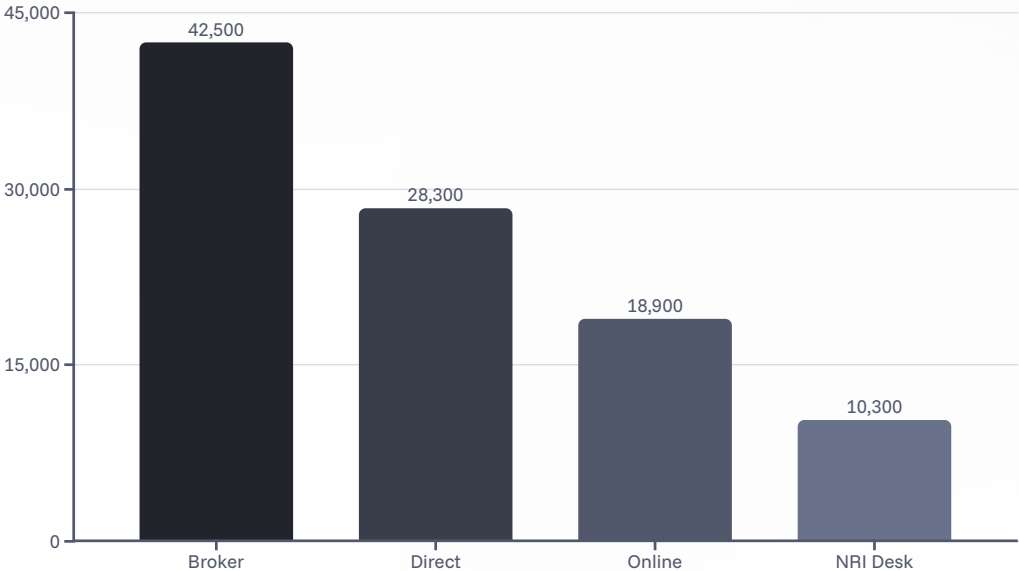
4 BHK strength: Strong secondary demand from established families and multi-generational households.

Ultra-luxury niche: 5 BHK+ and penthouses represent only 17% but command premium pricing and higher margins.

Sales Channel Efficiency

Channel Performance

This evaluation reveals which sales channels contribute most effectively to successful bookings in the luxury housing segment.



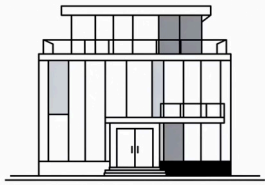
Quarterly Builder Contribution

This matrix visualization reveals how builder market dominance shifts over time, highlighting seasonal patterns and competitive dynamics.

Builder	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024
Prestige Group	₹485M	₹512M	₹548M	₹625M	₹680M
Brigade Group	₹368M	₹395M	₹412M	₹458M	₹492M
Sobha Limited	₹312M	₹328M	₹345M	₹378M	₹405M
Godrej Properties	₹265M	₹282M	₹298M	₹318M	₹342M

Prestige Group maintains consistent leadership with accelerating growth in recent quarters, while Brigade Group shows steady performance with moderate seasonal variations.

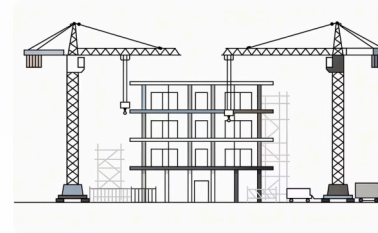
Possession Status vs Booking Decisions



Ready to Move

Premium pricing: Commands 15-20% price premium but appeals to end-users seeking immediate possession

Target buyers: Established families, relocated professionals, risk-averse investors



Under Construction

Value proposition: Lower entry prices with payment plans, attracting investors and budget-conscious buyers

Target buyers: Long-term investors, first-time luxury buyers, NRI customers

Buyer preferences vary significantly by type: End-users strongly favor ready properties (78% conversion), while investors show balanced interest (52% under construction vs 48% ready).

Geographic Distribution of Projects

East Corridor

Whitefield, HSR Layout –
Highest project density
with 45% of luxury
inventory

North Zone

Hebbal, Yelahanka –
Emerging markets with
infrastructure
development driving
growth

South Bangalore

Sarjapur, Bannerghatta –
Mid-tier luxury with
strong appreciation
potential

Central Districts

Indiranagar,
Koramangala – Limited
inventory, ultra-premium
positioning

Top Performers Summary

Revenue Champions

01

Prestige Group

₹2,450M total ticket sales

02

Brigade Group

₹1,890M total ticket sales

03

Sobha Limited

₹1,620M total ticket sales

04

Godrej Properties

₹1,380M total ticket sales

05

Puravankara

₹980M total ticket sales

Conversion Excellence

01

Prestige Group

72% booking success rate

02

Sobha Limited

69% booking success rate

03

Brigade Group

67% booking success rate

04

Godrej Properties

64% booking success rate

05

Mahindra Lifespace

62% booking success rate

Key Insights



Geographic Variation

Booking trends vary significantly by micro-market, with East Bangalore corridors showing 20-25% higher conversion rates than peripheral zones



Builder Concentration

Top 5 builders control 65% of total revenue, with Prestige Group alone capturing 28% market share through consistent quality and brand trust



Amenity Impact

Amenities influence conversion but not uniformly—optimal score range is 8.0-8.5, beyond which diminishing returns set in across most segments



Configuration Preference

Demand is heavily skewed toward 3 BHK (48%) and 4 BHK (35%) units, representing 83% of all luxury bookings in the analysis period

Business Recommendations

Target High-Conversion Zones

Concentrate marketing spend and new project launches in Whitefield and HSR Layout micro-markets where conversion rates exceed 68%

Configuration Strategy

Prioritize 3 BHK and 4 BHK units in new developments to align with dominant demand patterns, reserving limited 5 BHK+ for premium segments

Optimize Channel Mix

Expand NRI Desk capacity (71% conversion) and strengthen broker partnerships while improving online platform conversion through better UX

Smart Amenity Investment

Target amenity score range of 8.0-8.5 to maximize booking conversion without overinvesting in features that yield diminishing returns

Conclusion



End-to-End Pipeline

Successfully implemented complete analytics workflow from raw data ingestion through visualization



SQL-Driven Modeling

Centralized business logic in database views ensured clean, consistent visualization layer



Business Storytelling

Tableau enabled stakeholder-focused analysis answering critical market performance questions

This project demonstrates how structured analytics can convert raw luxury housing data into actionable market insights, empowering real estate stakeholders to make data-driven decisions about market positioning, product mix, and resource allocation in Bangalore's competitive luxury segment.