Intelligent Pricing Engine for the BLR Market

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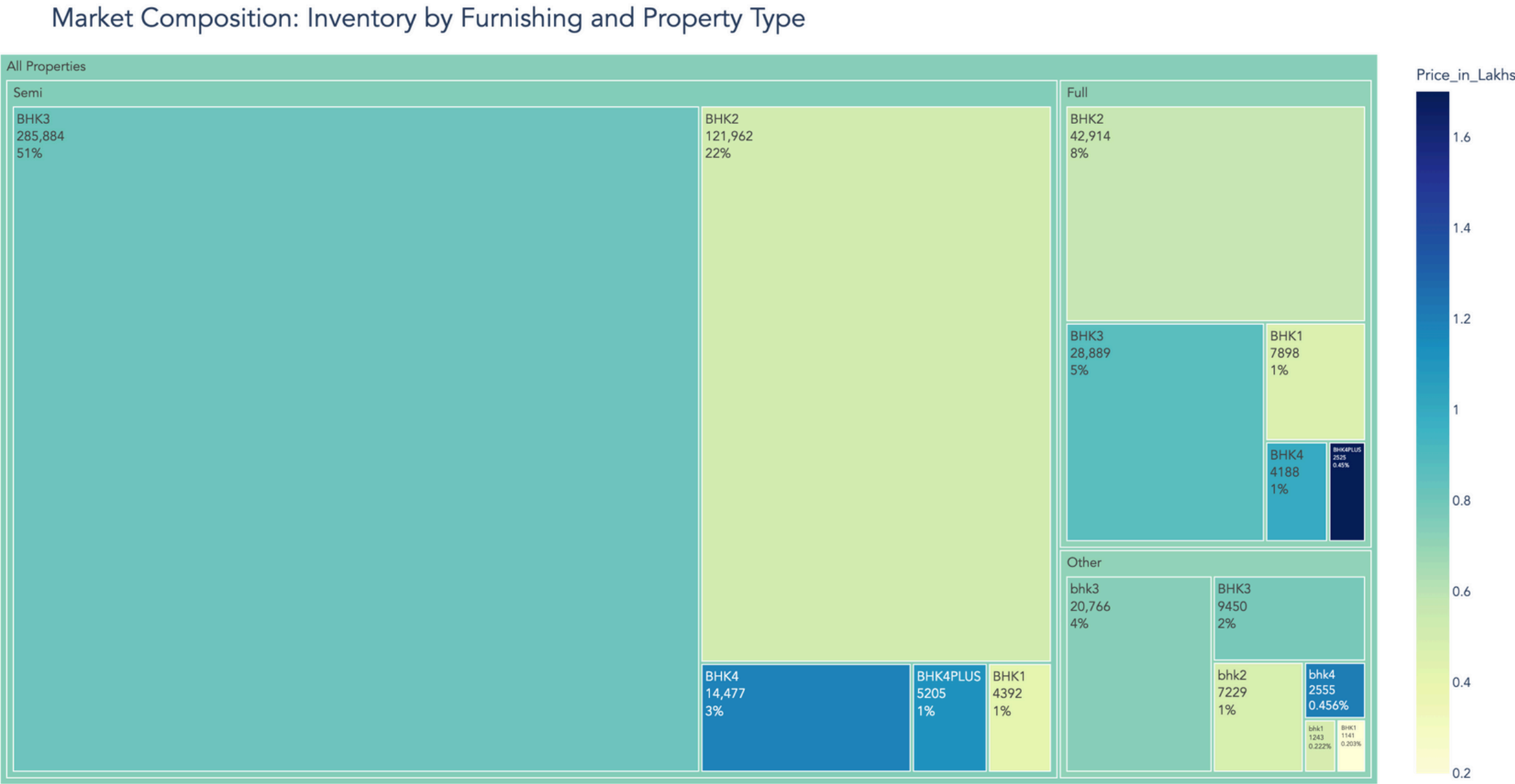# Mapping the Market

1. Volume: Over 50% of inventory is semi-furnished 2/3 BHKs- our core market.

2. Value: Niche segments like 4BHK+ contain the highest-priced assets.

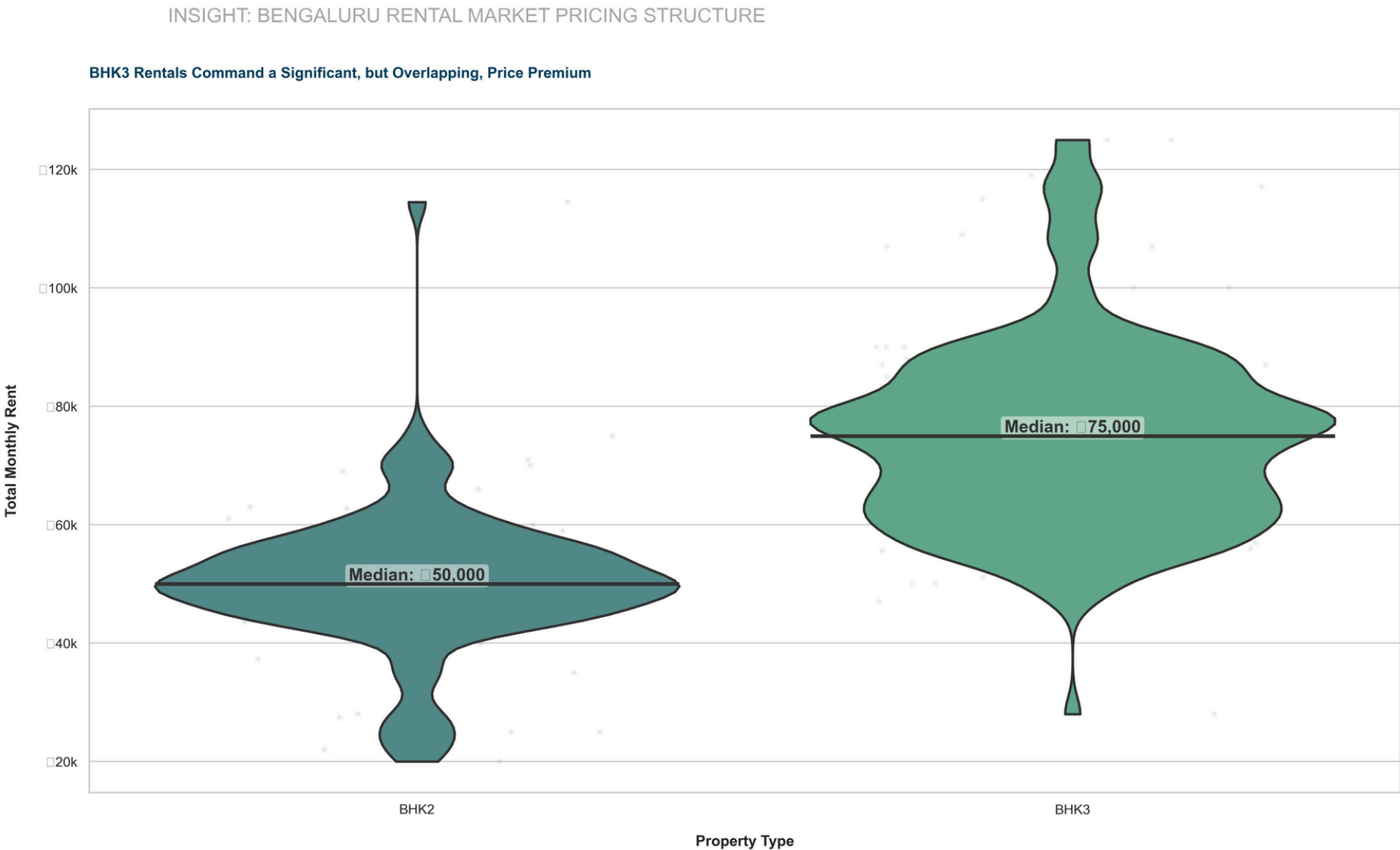**3.** Strategy: Requires efficiency for volume and precision for value.

Market Composition: Inventory by Furnishing and Property Type

The Strategic Landscape

The Problem: Simple Averages Fail

1. 3BHK > 50% median premium of 2BHK, yet price ranges overlap significantly.

2. "BHK type" alone is an unreliable predictor of price.

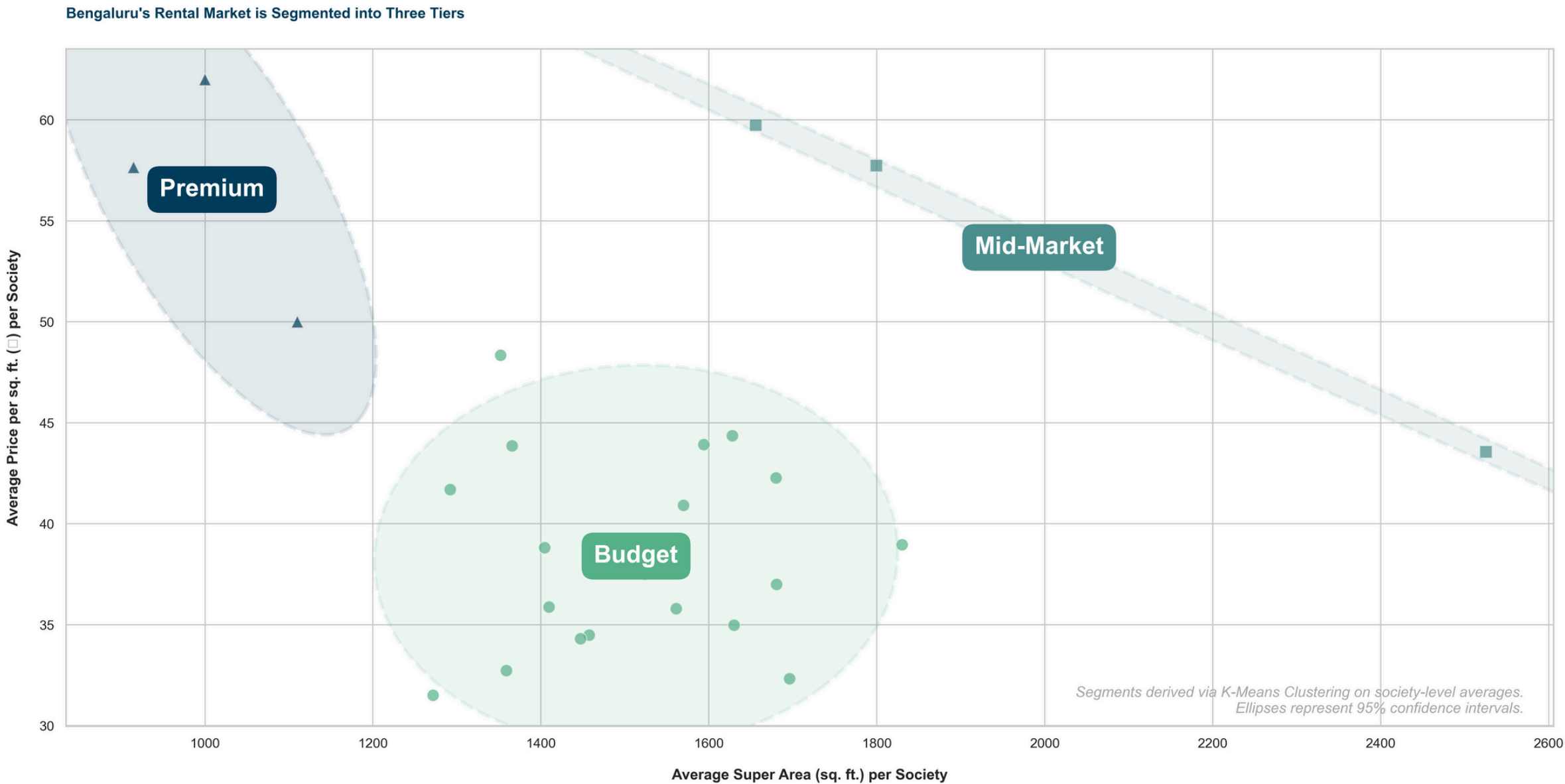**3.** We need to deconstruct the specific features that drive value.

INSIGHT: BENGALURU RENTAL MARKET PRICING STRUCTURE

BHK3 Rentals Command a Significant, but Overlapping, Price Premium

Median: ☐50,000

Median: ☐75,000

Total Monthly Rent

BHK2   BHK3

Property Type

03

Data-Driven Segmentation Framework

1. Clustering societies-'Premium', 'Mid-Market', 'Budget' tiers.

2. Crucial strategic step that allows for tailored, segment-specific pricing models.

3. This approach dramatically increases prediction accuracy.

INSIGHT: DATA-DRIVEN COMPETITIVE LANDSCAPE

Bengaluru's Rental Market is Segmented into Three Tiers

Average Price per sq. ft. (☐) per Society

Premium

Mid-Market

Budget

Segments derived via K-Means Clustering on society-level averages. Ellipses represent 95% confidence intervals.

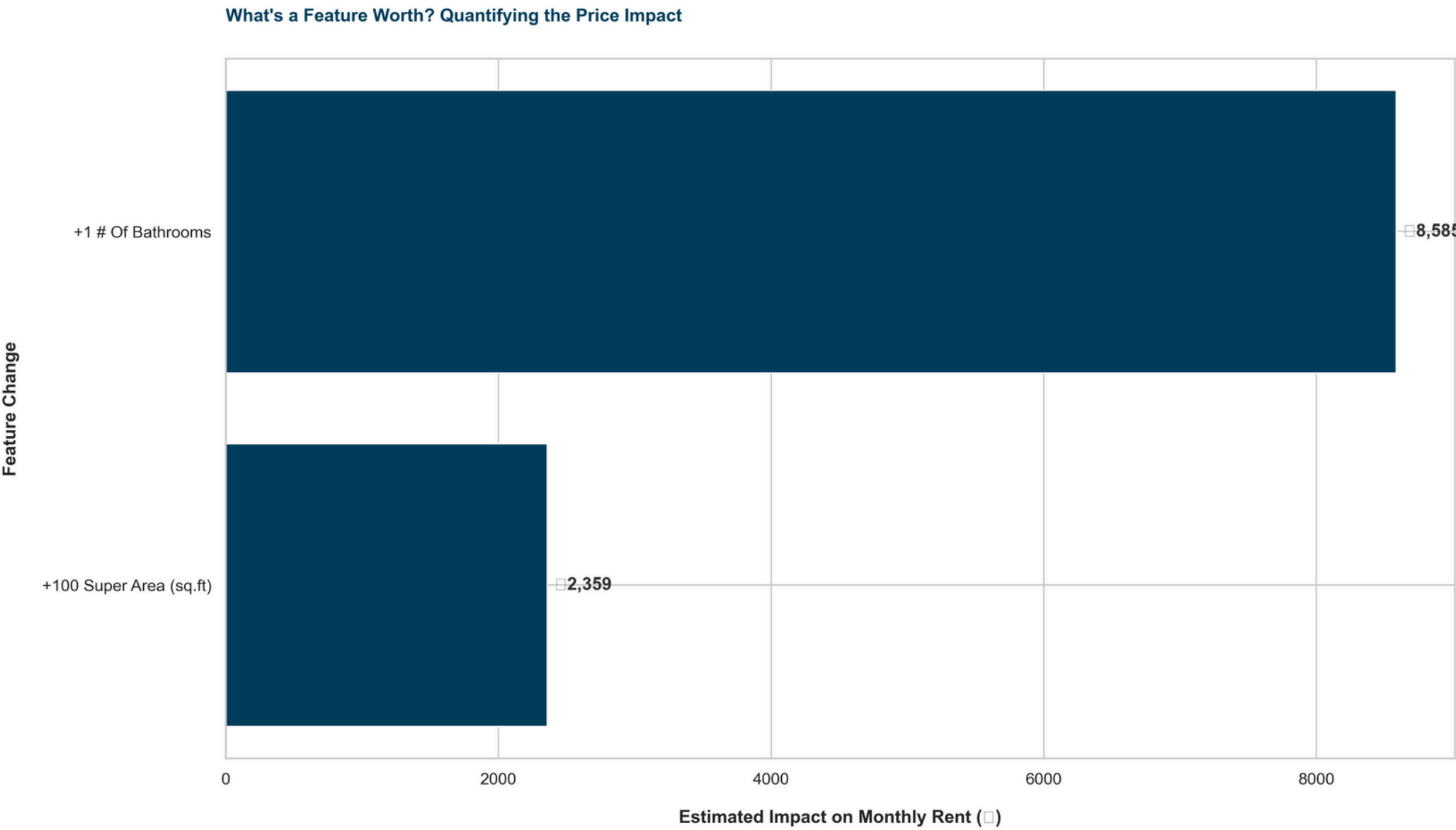Average Super Area (sq. ft.) per Society

Quantifying a Feature's True Worth

1. OLS regression- Engine isolates exact financial impacts of key features.

2. Example: An extra bathroom adds ~₹8,585/month; 100 sq. ft. adds ~₹2,359.

3. **Trust**: statistical proof: high R-squared, significant p-values.

What's a Feature Worth? Quantifying the Price Impact

Feature Change

+1 # Of Bathrooms — 8,585

+100 Super Area (sq.ft) — 2,359

Estimated Impact on Monthly Rent (₹)

0   2000   4000   6000   8000

The Engine's Failsafe: Hierarchical Logic

1. The engine validates ~76% of its own predictions.
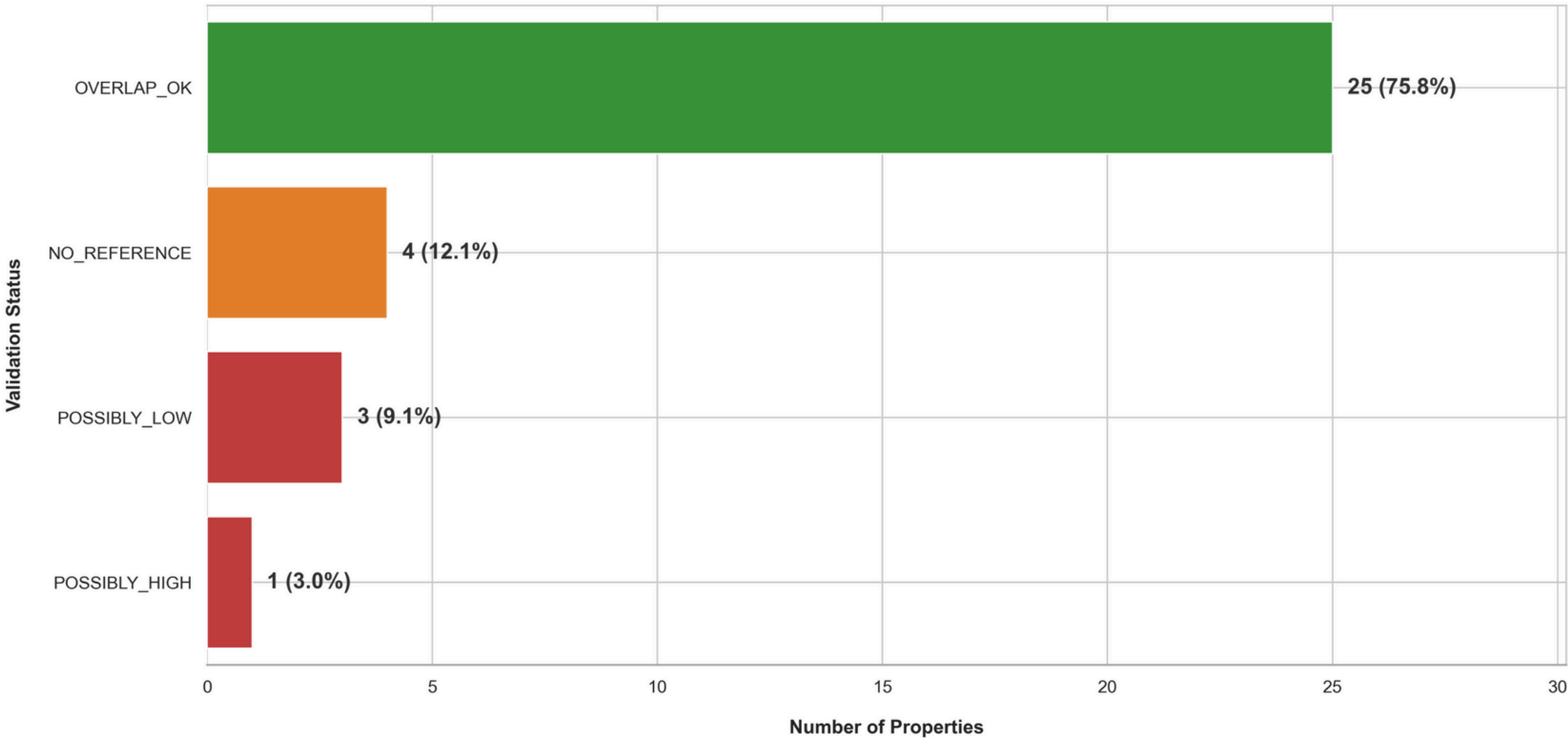
2. For the rest, our hierarchical logic acts as a crucial failsafe.

3. It intelligently falls back to segment averages, ensuring every price is reliable and defensible.

INSIGHT: MODEL CONFIDENCE & DATA QUALITY
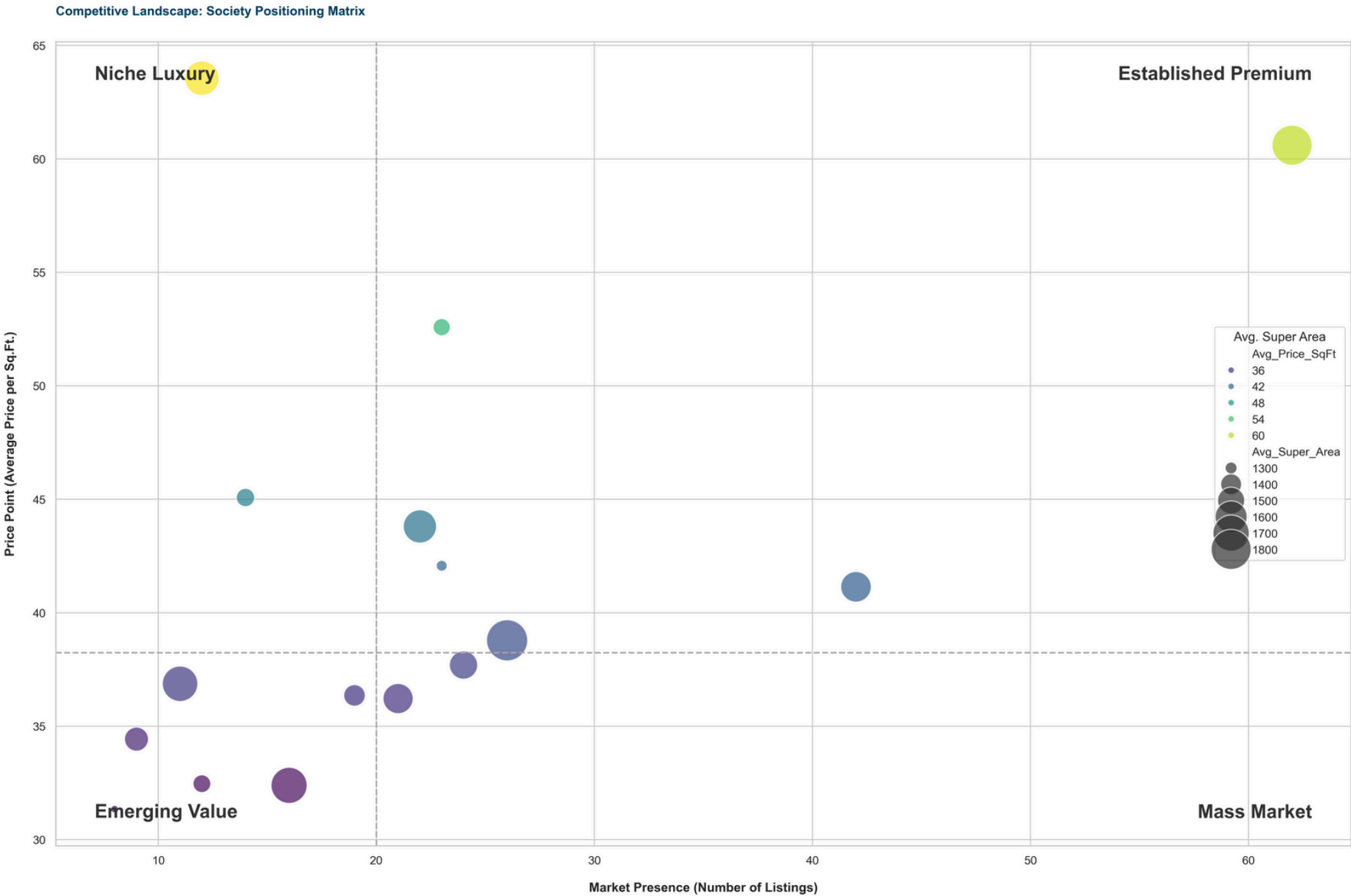
~76% of Price Estimations Pass Validation

Helium

A Real-Time Competitive Matrix

1. Auto-map the competitive landscape- market presence, price point.

2. Instantly identify 'Established Premium' leaders vs. 'Niche Luxury' players.

3. This provides an invaluable strategic map for sales, acquisitions, partnerships.

Competitive Landscape: Society Positioning Matrix

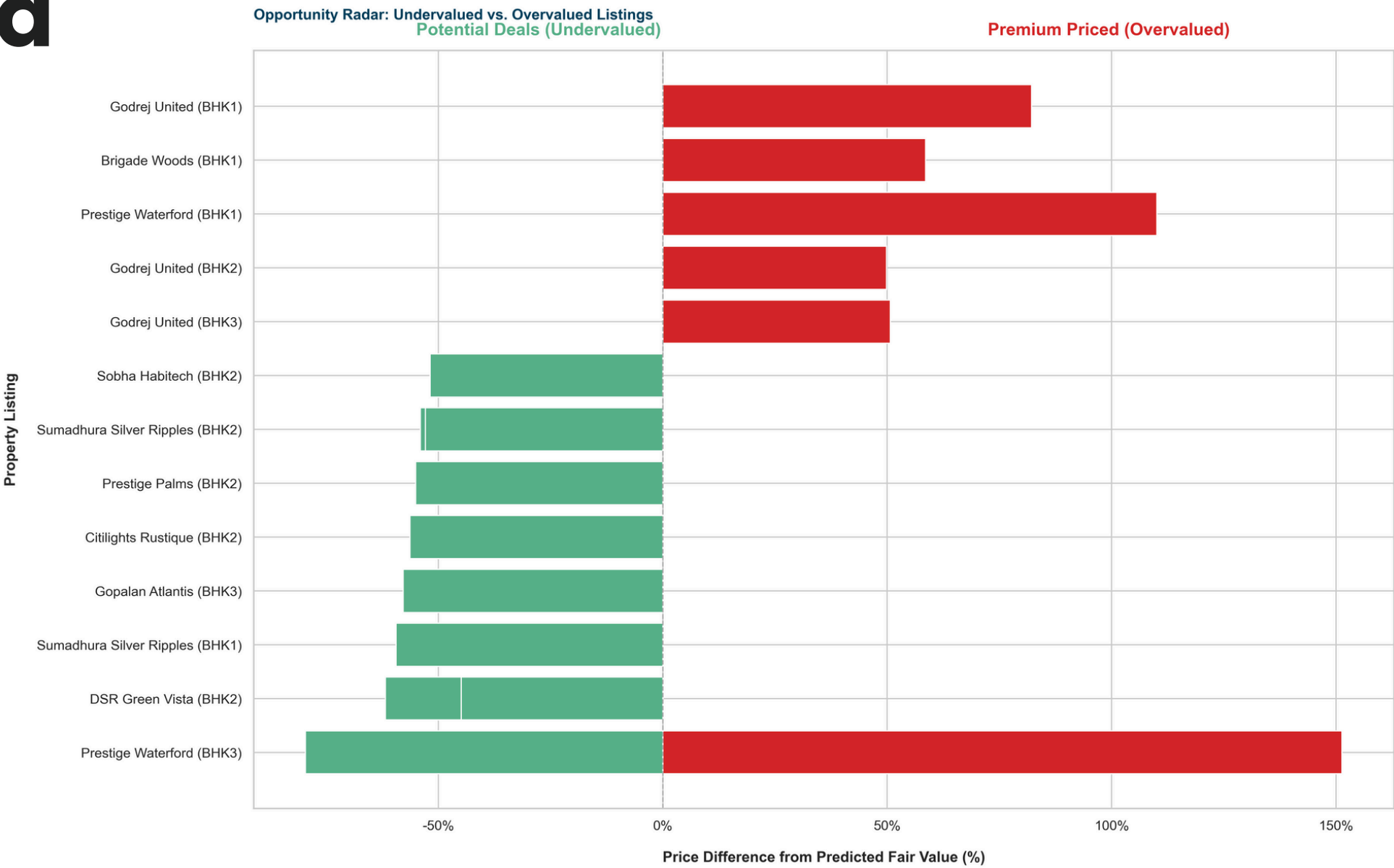# The Ultimate Payoff: Finding Market Alpha

1. Engine's core: systematically identify market inefficiencies, or 'alpha'.

2. Green bars = Undervalued assets. Immediate, data-driven opportunities.

3. Red bars = Overvalued listings. Critical intelligence for our negotiators.

Opportunity Radar: Undervalued vs. Overvalued Listings
Potential Deals (Undervalued)   **Premium Priced (Overvalued)**

Property Listing (y-axis, top to bottom):
- Godrej United (BHK1)
- Brigade Woods (BHK1)
- Prestige Waterford (BHK1)
- Godrej United (BHK2)
- Godrej United (BHK3)
- Sobha Habitech (BHK2)
- Sumadhura Silver Ripples (BHK2)
- Prestige Palms (BHK2)
- Citilights Rustique (BHK2)
- Gopalan Atlantis (BHK3)
- Sumadhura Silver Ripples (BHK1)
- DSR Green Vista (BHK2)
- Prestige Waterford (BHK3)

x-axis: **Price Difference from Predicted Fair Value (%)** (-50%, 0%, 50%, 100%, 150%)

The Engine in
Action

My Quantitative Advantage

1. Strategic Insight: Replaces anecdotal knowledge with a quantitative market view.

2. Defensible Accuracy: statistical models, resilient logic to trust.

3. Actionable Alpha: Translates accuracy to real-time tools- find undervalued assets, drive revenue.

My Code

Thank You

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Society Name	BHK	Size (sq.ft)	Estimation Level	Range Starting	Range Ending	Actual Min Price	Actual Max Price	Sanity Check
Brigade Cosmopolis	BHK2	1329	Society	₹35,400	₹56,100	₹34,000	₹71,000	OVERLAP_OK
Brigade Cosmopolis	BHK3	1736	Society	₹73,200	₹74,900	₹68,000	₹90,000	OVERLAP_OK
Brigade Woods	BHK2	1329	Society	₹61,500	₹68,300	₹55,500	₹70,800	OVERLAP_OK
Brigade Woods	BHK3	1808	Society	₹72,500	₹82,200	₹69,000	₹82,500	OVERLAP_OK
Casa Gopalan	BHK2	1446	Society	₹45,600	₹48,500	₹45,000	₹54,000	OVERLAP_OK
Casa Gopalan	BHK3	1630	Market Segment	₹54,100	₹69,900	₹50,000	₹50,000	POSSIBLY_HIGH
Citilights Rustique	BHK2	1371	Society	₹45,000	₹48,000	₹23,000	₹49,000	OVERLAP_OK
Citilights Rustique	BHK3	1805	Society	₹60,000	₹62,900	₹50,000	₹65,000	OVERLAP_OK
Dsr Green Vista	BHK2	1277	Society	₹41,100	₹43,700	₹20,000	₹48,500	OVERLAP_OK
Dsr Green Vista	BHK3	1508	Society	₹51,600	₹51,800	₹51,200	₹54,500	OVERLAP_OK
Godrej United	BHK2	1032	Global	₹48,900	₹58,700	₹75,000	₹75,000	POSSIBLY_LOW
Godrej United	BHK3	2030	Society	₹122,900	₹131,700	₹80,324	₹130,000	OVERLAP_OK
Gopalan Atlantis	BHK2	1222	Society	₹44,700	₹49,900	₹39,910	₹50,000	OVERLAP_OK
Gopalan Atlantis	BHK3	1766	Society	₹61,100	₹66,100	₹28,000	₹68,000	OVERLAP_OK
Mahaveer Tranquil	BHK2	1212	Society	₹42,100	₹48,300	₹43,500	₹53,000	OVERLAP_OK
Mahaveer Tranquil	BHK3	1680	Society	₹52,800	₹64,600	₹53,500	₹80,000	OVERLAP_OK
Prestige Boulevard	BHK2	1166	Society	₹47,600	₹51,200	₹49,780	₹57,000	OVERLAP_OK
Prestige Boulevard	BHK3	1641	Society	₹63,100	₹66,100	₹56,320	₹72,000	OVERLAP_OK
Prestige Palms	BHK2	1352	Society	₹45,700	₹52,800	₹22,000	₹57,000	OVERLAP_OK
Prestige Palms	BHK3	1854	Market Segment	₹54,100	₹69,900	₹58,300	₹62,462	OVERLAP_OK
Prestige Waterford	BHK2	2027	Global	₹48,900	₹58,700	₹114,500	₹114,500	POSSIBLY_LOW
Prestige Waterford	BHK3	1879	Society	₹89,200	₹95,900	₹77,000	₹950,000	OVERLAP_OK
Sobha Dream Acres	BHK2	1329	Predictive Model (Imputed)	₹46,000	₹62,300	N/A	N/A	NO_REFERENCE
Sobha Dream Acres	BHK3	1835	Predictive Model (Imputed)	₹59,800	₹81,100	N/A	N/A	NO_REFERENCE
Sobha Habitech	BHK2	1417	Society	₹51,000	₹57,600	₹28,000	₹62,700	OVERLAP_OK
Sobha Habitech	BHK3	1936	Society	₹76,200	₹79,200	₹65,000	₹91,500	OVERLAP_OK
Sobha Rose	BHK2	1329	Market Segment	₹49,300	₹57,000	N/A	N/A	NO_REFERENCE
Sobha Rose	BHK3	1707	Society	₹52,400	₹79,900	₹47,000	₹86,300	OVERLAP_OK
Sobha Windsor	BHK3	1835	Predictive Model (Imputed)	₹59,800	₹81,100	N/A	N/A	NO_REFERENCE
Sumadhura Silver Ripples	BHK2	1298	Society	₹54,700	₹56,000	₹25,000	₹60,300	OVERLAP_OK
Sumadhura Silver Ripples	BHK3	1858	Society	₹70,700	₹75,000	₹65,000	₹87,000	OVERLAP_OK
Sumadhura Soham	BHK2	1202	Society	₹46,400	₹52,400	₹45,000	₹60,032	OVERLAP_OK
Sumadhura Soham	BHK3	1578	Society	₹55,500	₹57,000	₹57,500	₹63,000	POSSIBLY_LOW