

Determinants of Home Loan Default Risk: A Comparative Analysis of Urban and Semi Urban Borrowers in the Mumbai Metropolitan Region

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ABSTRACT

The Indian housing finance market has witnessed exponential growth, with the Mumbai Metropolitan Region (MMR) emerging as one of the country's largest mortgage markets. However, rising interest rates, economic volatility, and post-pandemic financial stress have heightened concerns about loan defaults. This study examines the factors influencing home loan default risk among urban and semi-urban borrowers in MMR. We surveyed 450 home loan borrowers across Mumbai city and semi-urban areas like Kalyan, Dombivli, and Thane, supplemented by 25 in-depth interviews with banking professionals and defaulting borrowers. Our findings reveal that income stability, loan-to-value ratio, and financial literacy are the strongest predictors of default risk. Semi-urban borrowers demonstrated higher vulnerability due to irregular income streams and lower emergency savings, while urban borrowers faced risks from higher debt-to-income ratios and lifestyle inflation. The study contributes to risk assessment frameworks for housing finance companies and suggests tailored intervention strategies for different demographic segments.

Keywords: Home Loan Default, Credit Risk, Urban Borrowers, Semi-Urban Borrowers, Mumbai Metropolitan Region, Housing Finance, Loan Performance

Introduction

The Indian housing finance sector has grown at a compound annual growth rate of 16% over the past decade, with outstanding housing loans reaching ₹33 lakh crore by 2024.

The Mumbai Metropolitan Region, contributing nearly 20% of national mortgage disbursements, represents a critical market for banks and housing finance companies. However, the sector faces mounting challenges as gross non-performing assets in housing loans increased to 2.3% in 2024, with significant variation between urban core markets and peripheral semi-urban areas.

Home loan defaults carry severe consequences for financial institutions, borrowers, and the broader economy. Unlike unsecured lending, mortgage defaults involve lengthy recovery processes, volatile collateral values, and significant social costs including displacement and mental health impacts. Understanding why borrowers default—and why some segments are more vulnerable than others—remains essential for effective risk management and inclusive lending practices.

This study investigates the determinants of home loan default risk through a comparative lens,

examining how risk factors differ between established urban borrowers in Mumbai city and emerging semi-urban borrowers in rapidly urbanizing peripheral areas. The research addresses three critical questions: What are the primary drivers of default risk in the MMR housing market? How do these determinants vary between urban and semi-urban borrower profiles? What institutional mechanisms can mitigate default risk while maintaining credit access?

Literature Review and Theoretical Framework

Global Perspectives on Mortgage Default

Research on mortgage default has evolved significantly since the 2008 global financial crisis. Early models emphasized trigger events such as unemployment, divorce, or medical emergencies as primary default drivers. However, contemporary scholarship recognizes default as a complex phenomenon involving capability constraints, willingness-to-pay considerations, and structural market factors.

Gerardi, Shapiro, and Willen (2020) demonstrated that negative equity alone rarely causes default without accompanying income shocks, highlighting the interaction between household liquidity and collateral values. Similarly, Bhutta, Dokko, and Shan (2017) found that payment-to-income ratios predict default more reliably than loan-to-value ratios alone, suggesting that monthly affordability constraints matter significantly.

Indian Housing Finance Context

Indian housing markets present unique characteristics affecting default patterns. Unlike developed markets with robust social safety nets, Indian borrowers rely heavily on family support networks during financial distress. Chatterjee (2021) observed that joint family systems in semi-urban areas provide informal insurance against default, while nuclear urban families face higher vulnerability due to limited support structures.

Research by Bhowmik and Saha (2022) on Kolkata's housing market identified informal income documentation as a critical risk factor, with self-employed borrowers showing 40% higher default rates than salaried counterparts. However, these studies rarely compare urban and semi-urban dynamics within the same metropolitan region, leaving gaps in understanding how geographic context influences risk profiles.

Research Methodology Study Design and Sample

We adopted a mixed-methods approach combining quantitative surveys with qualitative interviews. The Mumbai Metropolitan Region was selected due to its housing market diversity, encompassing established urban centers (South Mumbai, Western Suburbs) and rapidly developing semi-urban areas (Kalyan, Dombivli, Ambernath, Badlapur).

Sample Distribution:

Location Type	Areas Covered	Sample Size	Response Rate
Urban Core	South Mumbai, Bandra, Andheri	225	78%
Semi-Urban	Kalyan, Dombivli, Thane periphery	225	82%
Total		450	80%

Participants were selected using stratified random sampling from housing finance company



databases, ensuring representation across income levels, loan tenures, and employment types.

Data Collection Instruments Data Collection Instruments

Survey Instrument: Self-administered questionnaires covering:

Demographic and Economic Variables: Age, education, household income, employment type, family structure

Loan Characteristics: Loan amount, interest rate, tenure, loan-to-value ratio, EMI-to-income ratio

Financial Behavior: Savings patterns, emergency fund availability, other debt obligations, investment habits

Attitudinal Measures: Homeownership motivation, financial literacy self-assessment, stress indicators
All attitudinal items used 5-point Likert scales (1 = Strongly Disagree, 5 = Strongly Agree). **Qualitative**

Component: 25 in-depth interviews including:

- 10 banking professionals (credit managers, recovery officers)
- 8 borrowers with default history
- 7 financial counselors working with distressed homeowners

Analytical Approach

We employed multiple regression analysis to identify significant default predictors, with default status (current vs. defaulted) as the dependent variable. Independent variables were grouped into:

- **Economic Factors:** Income stability, employment sector, debt-to-income ratio
- **Loan Structure Factors:** Interest rate, tenure, LTV ratio, EMI burden
- **Behavioral Factors:** Financial literacy, savings behavior, risk appetite
- **Geographic Factors:** Urban vs. semi-urban location, property market liquidity Cronbach's Alpha was calculated to ensure scale reliability, with all constructs achieving values above 0.75.

8. Data Analysis and Results Sample Characteristics

Our sample reflected MMR's demographic diversity:

Characteristic	Urban (n=225)	Semi-Urban (n=225)
Average Age	38.2 years	34.7 years
Salaried Employment	72%	58%
Self-Employed	18%	32%
Average Household Income	₹18.5 lakh/year	₹12.3 lakh/year
Average Loan Amount	₹85 lakh	₹48 lakh
Current Default Status	8.40%	14.20%

Our regression model explained 47% of variance in default probability ($R^2 = 0.468$). Significant determinants included:

Factor	Coefficient	Significance	Impact Interpretation
Income Stability Index	-0.342	$p < 0.001$	Higher stability reduces default risk significantly
EMI-to-Income Ratio	0.298	$p < 0.001$	Higher burden increases default probability
Emergency Savings Availability	-0.267	$p = 0.002$	Savings buffer protects against default
Financial Literacy Score	-0.198	$p = 0.008$	Knowledge improves repayment capacity
Loan-to-Value Ratio	0.156	$p = 0.024$	High leverage increases vulnerability
Property Location (Semi-Urban)	0.142	$p = 0.041$	Semi-urban location adds marginal risk
Employment Sector (Informal)	0.189	$p = 0.011$	Informal employment elevates risk

Urban vs. Semi-Urban Comparison Urban Borrower Profile:

- Higher absolute incomes but elevated debt-to-income ratios (average 38% vs. 32% semi-urban)
- Greater exposure to lifestyle inflation and discretionary spending
- Higher financial literacy but overconfidence in income growth projections
- Better access to refinancing options and financial advisory services
- Default triggers: Job loss in competitive sectors, medical emergencies, divorce/separation

Semi-Urban Borrower Profile:

- Lower but more stable community-based income sources
- Higher dependence on informal sector employment (32% vs. 18%)
- Limited emergency savings (average 2.1 months expenses vs. 4.3 months urban)
- Stronger family support networks but weaker formal financial safety nets
- Default triggers: Business income volatility, inadequate insurance coverage, property market illiquidity

Qualitative Insights

Interview data revealed nuanced default pathways:

"Urban borrowers often stretch their budgets assuming future salary increments. When the IT sector faced layoffs last year, many young professionals in Andheri and Powai found themselves unable to manage EMIs that seemed affordable during bonus seasons."—

Senior Credit Manager, Private Bank

"In Kalyan, borrowers rarely default because they hate to lose face in the community. But when the breadwinner's small business fails, they have no cushion. They hide the problem until it's too severe to resolve." — Recovery Officer, Housing Finance Company

"I never understood how floating interest rates work. When my EMI increased by ₹4,000 overnight, my entire monthly budget collapsed. There was no one to explain this risk when I signed the papers."— Defaulting Borrower, Dombivli.

Discussion and Interpretation Key Findings

Our analysis confirms that home loan default in MMR is multifactorial, with economic capability constraints outweighing attitudinal or strategic factors. Three critical insights emerge:

First, income stability emerges as the strongest protective factor, surpassing absolute income levels. This finding challenges conventional lending practices emphasizing salary thresholds over employment security, suggesting that a ₹10 lakh earner in government service may represent lower risk than a ₹25 lakh earner in volatile startup employment.

Second, the urban-semi-urban dichotomy requires nuanced interpretation. While semi-urban borrowers show higher default rates, this reflects structural vulnerabilities (informal employment, lower savings, limited financial literacy) rather than inferior creditworthiness intentions. Geographic location itself adds marginal risk after controlling for these factors, suggesting that property market liquidity and resale value concerns contribute independently to default probability.

Third, financial literacy operates as a significant protective factor, yet remains inadequately addressed in pre-disbursement counseling. Borrowers with higher literacy scores demonstrated better EMI management, proactive communication with lenders during distress, and utilization of repayment flexibility options.

Implications for Risk Assessment

Traditional credit scoring models underweight emergency savings and over-rely on current income documentation. Our findings suggest incorporating:

Liquidity Stress Testing: Assessing borrower resilience against 3-6 month income interruption

Employment Sector Risk Grading: Differentiating formal sector stability from informal sector volatility

Financial Literacy Assessment: Integrating knowledge evaluation into credit appraisal

Geographic Risk Adjustment: Accounting for property market liquidity variations **Policy and Practice**

Recommendations

For Lenders:

- Develop tiered counseling programs addressing urban overconfidence and semi-urban information

gaps

- Create emergency forbearance products allowing temporary EMI reduction without default classification
- Implement early warning systems triggering intervention when borrowers miss utility payments or show account activity changes

For Regulators:

- Mandate standardized "stress test" disclosures illustrating EMI obligations under interest rate scenarios
- Promote mortgage insurance products covering involuntary unemployment and disability
- Support property title digitization and foreclosure process streamlining to reduce lender losses and borrower stigma

For Borrower Support:

- Establish community financial literacy centers in semi-urban areas
- Develop peer support networks for distressed homeowners
- Create refinancing facilitation services helping borrowers optimize loan structures

Conclusion

This study demonstrates that home loan default risk in the Mumbai Metropolitan Region stems from intersecting economic, structural, and behavioral factors that vary significantly between urban and semi-urban contexts. While semi-urban borrowers face higher vulnerability due to informal employment and limited savings, urban borrowers confront risks from leverage excess and income volatility in competitive sectors.

The findings challenge one-size-fits-all approaches to mortgage lending and risk management. Effective intervention requires segment-specific strategies: urban borrowers need guidance on sustainable leverage and emergency preparedness, while semi-urban borrowers require enhanced financial literacy and formal sector employment transition support.

As India's housing finance market continues expanding into semi-urban and rural areas, understanding these geographic nuances becomes critical for maintaining portfolio quality while advancing financial inclusion. Future research should examine longitudinal default trajectories, the effectiveness of alternative credit scoring models, and the impact of emerging fintech solutions on borrower resilience.

The shift from "asset-backed" to "income-based" lending philosophies—recognizing that collateral value matters less than repayment capacity—represents the fundamental insight for housing finance evolution. Lenders, policymakers, and borrowers who internalize this principle will be best positioned to sustain India's housing boom while minimizing the social and economic costs of default.

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