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Critical Success Barriers (CSB) to Rental Housing Policy Implementation in Urban India

*1 **Debanjali Saha** (iD) , 2 **Haimanti Banerji** (iD) , 3 **Umesh Kumar** (iD)

1, 2 & 3 Department of Architecture and Regional Planning, Indian Institute of Technology, Kharagpur, West Bengal, India
1 E-mail: ddebanjali18@kgpian.iitkgp.ac.in , 2 E-mail: haimanti@arp.iitkgp.ac.in , 3 E-mail: umesh.kumar@iitkgp.ac.in

ABSTRACT

Barriers to rental housing (RH) pose significant challenges to urban development in India. This study examines critical success barriers (CSBs) to implementing RH policies, offering novel insights into this underexplored area. Despite rising demand for RH, significant obstacles hinder effective policy execution. Through expert surveys with 36 respondents and RIDIT analysis, the research identifies and prioritizes 16 CSBs, categorized into Regulatory and Institutional, Economic and Market, and Infrastructure and Development groups. Key findings reveal that the most critical barriers are inflexible rental agreements, negative social attitudes, and the absence of government incentives. These interdependent barriers impact the feasibility, attractiveness, and sustainability of RH projects. Inflexible agreements limit participation, negative social attitudes hinder inclusive development, and lack of incentives reduces private investment. The study recommends revising rental agreements, providing substantial incentives to private investors, and promoting high-density development through modified zoning regulations. Emphasizing multi-level governance, stakeholder engagement, and regular policy evaluations is crucial for effective implementation. Addressing these barriers can enhance the RH sector's sustainability and scalability. This research contributes to the existing literature by providing a quantitative framework for identifying and prioritizing CSBs in the RH, offering valuable insights for policymakers, developers, and stakeholders in urban housing.

Highlights:	Contribution to the field statement:
- This analysis identifies and prioritizes 16 critical success barriers (CSBs) to implementing rental housing policy in urban India through RIDIT analysis. - It provides evidence for the significant impact of regulatory, economic, and infrastructural barriers on rental housing initiatives in developing countries. - The research employs a mixed-methods approach, integrating qualitative interviews and quantitative surveys with housing experts. - Key recommendations include flexible rental agreements, government incentives for private investors, and promotion of high-density development.	- This study advances the understanding of rental housing (RH) policy implementation in urban India by addressing a critical knowledge gap. It identifies and ranks key barriers to effective RH policies, providing valuable insights for academia, policymakers, and housing sector stakeholders. The research offers evidence-based recommendations for overcoming these barriers, contributing to more effective policy formulation. By exploring this understudied area, the study lays a foundation for future research in urban housing policy. The comprehensive framework presented aims to balance RH supply with demand, potentially alleviating the housing shortage crisis. This work enhances housing accessibility and affordability in urban India, benefiting various stakeholders and advancing urban housing policy.

*****Debanjali Saha:**
Department of Architecture and Regional Planning, Indian Institute of Technology, Kharagpur, West Bengal, India
Email address: ddebanjali18@kgpian.iitkgp.ac.in

1. Introduction
1.1 Background and Context

The rapid pace of urbanization globally has significantly influenced housing markets, presenting both challenges and opportunities for urban development (Akande, 2021; Bangura & Lee, 2023). In developing countries, this phenomenon has intensified the demand for affordable rental housing (RH) (Agayi & Karakayacı, 2020; Gupta & Gupta, 2017). The high costs associated with housing construction and purchase often exclude low-income groups from the opportunity for homeownership (Welters et al., 2024). Consequently, renting has emerged as a practical and flexible housing solution, particularly for those unable to afford homeownership. It offers a vital alternative for individuals in transitional stages or those not prepared for the financial commitment of homeownership (Gilbert, 2016). In urban areas of developing countries, a significant portion of the population resides as tenants under residential tenancy agreements (Naik, 2019). Furthermore, RH provides additional benefits beyond mere accommodation. It often offers proximity to workplaces, thereby enhancing productivity and fostering entrepreneurship (Gupta & Gupta, 2017; Harish et al., 2023). This particularly benefits low-income families, students, migrant workers, young households, and other urban residents, ultimately promoting economic mobility (Government of India, 2015).

Despite the rising need for RH in developing countries like India, a substantial unmet demand still needs to be met. The Technical Group on Urban Housing Shortage, established by the Ministry of Housing and Urban Affairs, estimates a shortfall of approximately seven million rental homes across urban India (Government of India, 2015). This shortage is further reported by Census data, which reports a significant decline in RH's share from 58% in 1961 to 28% in 2011 (Census of India, 2011). This decline highlights several factors impeding the growth of India's RH market and pushing it towards informality. The imbalance in India's housing markets is particularly apparent in urban slums, where about 37.5% of slum households reside in rented accommodations. This situation reflects a high demand for RH and low affordability (Harish et al., 2023).

Further exacerbating the problem are low rental yields, which have deterred landlords from investing in rental properties. Despite some residential real estate sector recovery, gross rental yields have stagnated at 3-4.5%. After accounting for expenses such as property taxes, maintenance charges, agent fees, and non-occupancy costs, net rental yields in most Indian cities hover around 2-3%—among the lowest rates globally (Frank & Khaitan Co., 2019). This stagnant trend in rental yields, combined with the lack of capital value appreciation for residential properties, has significantly limited investor participation in India's housing market. The resulting shortage of formal rental options has pushed many urban residents towards informal and often substandard housing solutions, further complicating the urban housing landscape in India.

In response to the growing need for RH, the Indian government has introduced several policy interventions. However, these efforts have primarily remained in the planning stages or faced challenges in implementation. The Draft National Urban Rental Housing Policy of 2015, aimed at addressing urban RH issues, has proven ineffective in its implementation (Government of India, 2015). Similarly, the Affordable Rental Housing Complexes (ARHC) scheme, launched in 2020 to support urban migrants and the poor, has faced complex market dynamics and implementation challenges (Government of India, 2020). Despite its potential to offer better quality-to-rent ratios, the scheme's effectiveness has been limited by factors such as locational disadvantages, management issues, and reduced tenure security, leading to a lack of demand and suboptimal outcomes in addressing urban India's RH needs (Harish, 2021). These shortcomings have resulted in a near absence of formal government-sponsored RH, leading to the proliferation of unregulated, sub-standard housing in urban areas.

Compounding these issues are the existing Rent Control Acts (RCA), which form the main regulatory framework for rental markets. These heavily pro-tenant laws restrict rent increases to marginal levels and impose severe limitations on evictions, significantly stifling the rental market's vitality (Ambrosius et al., 2015; Tandel et al., 2016). Consequently, landlords are often reluctant to offer their properties for rent, further exacerbating the housing shortage (Frank & Khaitan Co., 2019).

Additionally, the challenges of implementing effective RH policies are compounded by bureaucratic hurdles, financial constraints, and complex regulatory barriers (Airgood-Obrycki et al., 2023; Seo et al., 2023). This combination of restrictive regulations and implementation challenges continues to hinder the development of a robust and sustainable RH sector in India, leaving a significant gap between housing needs and available solutions in urban areas.

1.2 Research Gap and Objectives

While extensive literature explored critical barriers to sustainable housing, there is a notable dearth of research specifically addressing the challenges in implementing RH policies in developing countries like India. Existing studies have predominantly focused on housing barriers or the needs of high-income groups, overlooking the unique challenges the RH market faces in developing regions. For example, Williams & Dair (2007) and Karji et al. (2020) have highlighted challenges such as a scarcity of skilled professionals, insufficient knowledge, and high expenses in sustainable housing. Similarly, Alam et al. (2019) and Winston (2010) identified delays in planning and approval processes, lack of housing guidelines, and scarcity of experts as significant obstacles in Australia and Ireland, respectively. Research by Adabre et al. (2020) and El Touny et al. (2021) pointed out infrastructural deficiencies and a shortage of information on sustainable principles in New Zealand and Sub-Saharan Africa. Further challenges highlighted in the literature include inequality and neglect of low-income residents' needs (Sulemana et al., 2019; Muhammad et al., 2015), insufficient professional expertise and policy contradictions (Akinshipe et al., 2019; Agyemang & Morrison, 2017). Economic barriers, such as high rental charges, transportation, and operational costs (Chan & Adabre, 2019), often force households to choose between shelter and other basic needs. Zhang et al. (2016) discussed inadequate public funding and stringent credit conditions as significant hindrances to RH development, while other studies pointed to community opposition (Trudeau, 2018) and income segregation (Roy et al., 2018) as additional complicating factors.

However, these studies need to specifically address the unique challenges and barriers to successful RH projects in urban India. This research aims to bridge this gap by identifying and analyzing the critical success barriers (CSBs)—key obstacles impeding the effective implementation of RH policies in the Indian context (Adabre & Chan, 2021; Oluleye et al., 2021). The study has three primary objectives: first, to identify the critical success barriers (CSBs) in RH policies in urban India; second, to perform a priority ranking of the most critical barriers using RIDIT analysis; and third, to propose strategies to overcome these barriers. The study employs a mixed-methods approach to achieve these objectives, combining qualitative interviews with key stakeholders and quantitative surveys. This methodology ensures a comprehensive analysis of the barriers and the development of evidence-based strategies, providing a well-rounded understanding of the issues and actionable recommendations for improvement.

1.3 Contribution and Structure of the Paper

The study makes significant contributions to the field of RH policy in urban India, benefiting various stakeholders, including academia, policymakers, and housing sector participants. For the academic community, it expands the existing knowledge base by exploring the understudied area of RH policy barriers in urban India, providing detailed analysis and valuable data for further research and theoretical advancements. The comprehensive examination of these barriers in the study fills a crucial gap in the literature and lays the groundwork for future investigations in this field. This research offers evidence-based insights for policymakers by identifying and ranking the most critical barriers to RH policy implementation. These findings are invaluable for informing policy decisions and formulating effective RH strategies. Moreover, the study proposes practical approaches to overcome these barriers, potentially enhancing the efficacy of future housing policies. Other stakeholders in the housing sector, such as developers, landlords, and community organizations, will benefit from the actionable intelligence on the pressing barriers to RH projects, enabling them to take proactive measures to address these challenges. Ultimately, this research presents a comprehensive framework

for enhancing RH initiatives in urban India, aiming to address the housing shortage crisis by balancing the supply of RH with the demand. By providing an in-depth assessment of the challenges and potential solutions, this study improves housing accessibility and affordability in urban India.

The subsequent sections of this paper are organized as follows: Section 2 details the research methodology, including the systematic literature review conducted to identify barriers hindering effective RH implementation. Section 3 presents the results of the statistical analysis of survey responses. Section 4 discusses the findings and their implications. Finally, Section 5 concludes the paper by summarizing key insights and suggesting directions for future research and policy development.

2. Materials and Methods
2.1 Study Design and Setting

This research employs a mixed-methods design, integrating qualitative and quantitative approaches to comprehensively identify and analyze the CSBs for RH policy implementation in urban India (Sohaimi & Shuid, 2023). The study adopts an observational, cross-sectional approach, aiming to capture data from a diverse group of housing experts at a single point in time. This design facilitates the collection of both in-depth insights and broad statistical data, enabling a nuanced understanding of the multifaceted barriers affecting RH development.
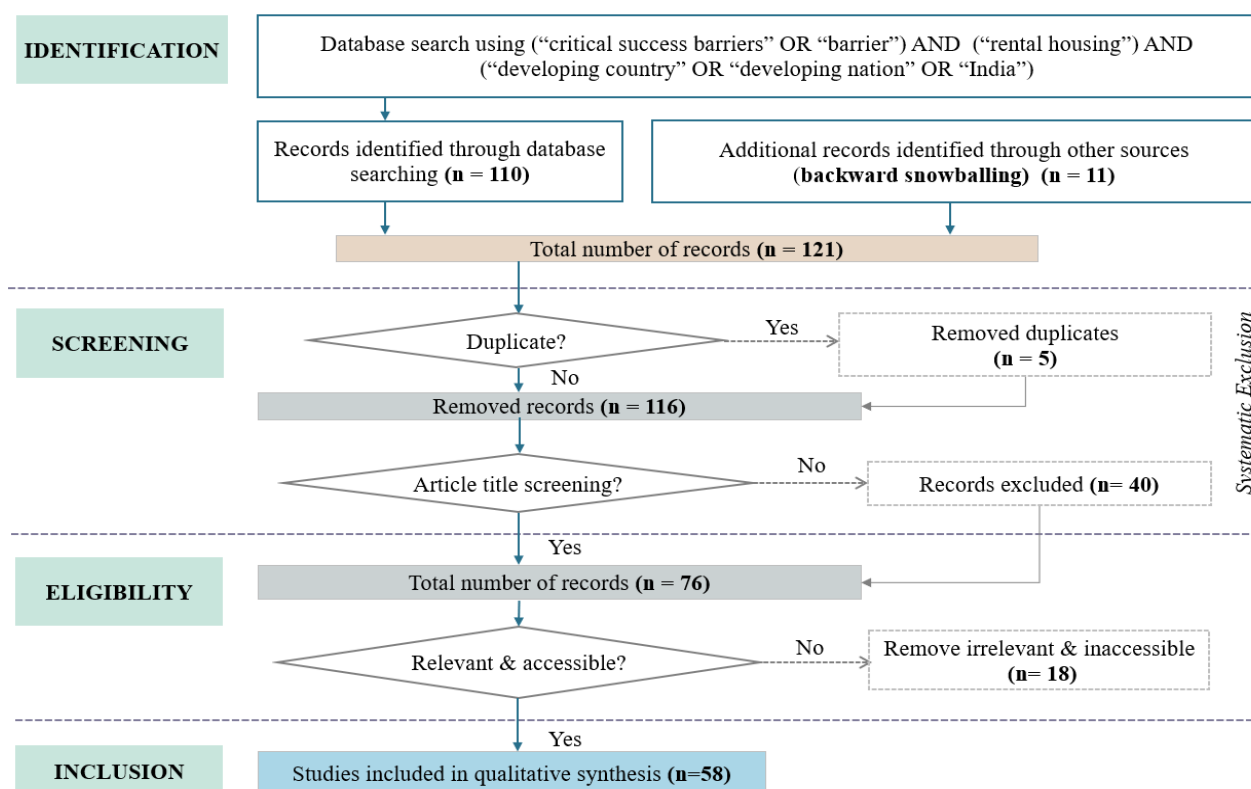
Figure 1. The process of literature selection – PRISMA flow diagram (Moher et al., 2009).

The research process commenced with a systematic literature review (SLR) utilizing the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) technique to ensure transparency and reproducibility (Moher et al., 2009). To conduct the SLR, authors accessed prominent databases such as Scopus and Web of Science, focusing on peer-reviewed publications from 2010 to 2023. To enhance the comprehensiveness of the review, a systematic backward snowballing process was employed, incorporating highly cited references and frequently referenced research publications (Anirudh et al., 2021; Shukla et al., 2023; Singh et al., 2021). Through this rigorous process, 58 articles were selected for in-depth analysis. These documents underwent a

thorough manual content analysis to extract and analyze relevant indicators or CSBs. As a result of this comprehensive review, 32 potential CSBs were identified (Figure 1), each meticulously referenced to its source. This methodical approach ensures a solid foundation for the subsequent phases of the study, providing a clear and traceable path from existing literature to the identification of critical barriers in RH policy implementation.

2.2 Identification of Potential CSB for Rental Housing

The identification of barriers to RH development reveals a global pattern of challenges, transcending national boundaries. To facilitate a more structured approach to addressing these barriers, they have been categorized based on the level of intervention required: national-level, state-level, and city-level policy (Table 1). At the national level, broad policy frameworks and financial incentives can be established to guide and support state and local initiatives. These overarching strategies provide a foundation for coherent RH development across the country. Building upon the national framework, state-level interventions allow for the adaptation of policies to regional contexts, ensuring that they address specific local needs and conditions. Finally, city-level interventions represent the ground-level implementation of these policies, dealing with the unique urban challenges and opportunities that arise in diverse metropolitan settings. This multi-tiered categorization of barriers serves a crucial purpose: it enables policymakers and stakeholders to allocate resources more effectively and tailor interventions to the appropriate administrative level (Frank & Khaitan Co., 2019).

Table 1: List of indicators from the literature review.

Code	Barriers	Countries	Level of intervention	Impact on stakeholders	Reference
CSB 1	Public unawareness regarding rental housing	India	National Level (Policy), State Level (Awareness campaigns)	Tenants unaware of rental options; Investors see underutilized stock	(Gupta & Gupta, 2017)
CSB 2	Resistance to housing mortgages and loans	USA, Australia, Malaysia, Italy, Hong Kong, Sweden China, Canada, Ghana, New Zealand, Singapore Brazil, India, Spain, South Africa, Japan, Norway, Papua New Guinea	National Level (Policy), State Level (Financial programs)	Limited access to loans for tenants	(Adabre & Chan, 2019)
CSB 3	Policy conflicts between government authorities	UAE, UK	State Level (Policy coordination)	Uncertainty for developers- risky investment	(Osei-Kyei et al., 2017)
CSB 4	Absence of government incentives for private housing entities	England	National Level (Policy)	Reduced supply of rental housing; Low investment from developers	(Oyebanji et al., 2017)
CSB 5	High cost of capital (i.e., interest rates on loans)	UK	National Level (Monetary policy)	High financing costs for developers; Reduced number of projects	(Adabre & Chan, 2019)
CSB 6	Increasing rent compared to income	USA, Australia, Malaysia, Italy, Hong Kong, Sweden China, Canada, Ghana, New Zealand, Singapore	National Level (Policy), State Level (Regulations)	Tenants face affordability issues; Investors see reduced returns	(Chan & Adabre, 2019)

		Brazil, India, Spain, South Africa, Japan, Norway, Papua New Guinea			
CSB 7	Stringent rent control policies	Nigeria, Malaysia		Reduced profitability for landlords; Limited supply for tenants	(Muhammad & Johar, 2018)
CSB 8	Inflexible rental agreements	Netherlands, China, United States, Belgium, South Africa		Low retention for tenants; Reduced participation for landlords	(Abidoye et al., 2022a)
CSB 9	High cost of serviced land	Ghana, China, Hong Kong, Nigeria, Malaysia	State Level (Land Use Planning)	High costs for developers; Reduced profitability	(Makinde, 2013; Muhammad & Johar, 2018)
CSB 10	High approval cost (high taxes and fees on developers)	USA, Australia, Malaysia, Italy, Hong Kong, Sweden China, Canada, Ghana, New Zealand, Singapore Brazil, India, Spain, South Africa, Japan, Norway, Papua New Guinea	State Level (Regulatory Reform), City Level		(Liang & Jia, 2018)
CSB 11	Limited supply of rental units against high demand	Nigeria	State Level (Development Programs), City Level (Project Implementation)	High rents and dissatisfaction for tenants; Investors see limited returns	(Ezennia, 2022a)
CSB 12	Negative attitudes to social mix	India	City Level (Community Programs)	Segregation and limited options for tenants	(Roy et al., 2018)
CSB 13	Limited land availability in urban areas for RH projects	Nigeria	State Level (Land Use Planning), City Level (Zoning Regulations)	High costs for developers; Limited new projects for tenants	(Ogwueleka, 2011)
CSB 14	Poor stakeholder engagement and communication	Nigeria	City Level (Community Engagement)	Misaligned goals for stakeholders-reduced project success	(Oluleye et al., 2020)
CSB 15	Low utilization of land for high-density development	Nigeria	City Level (Local Zoning)	Limited availability of rental units; Low returns for investors	(Ezennia, 2022a)
CSB 16	Deficient infrastructure for housing	India	City Level (Project Implementation)	Poor infrastructure for tenants; Reduced viability for projects	(Agarwal et al., 2021)
CSB 17	Substandard rental housing design and construction	Nigeria	National Level (Building Codes), State Level (Enforcement)	Unsafe housing for tenants; High maintenance costs for landlords	(Haruna et al., 2023; Mukhtar et al., 2016)
CSB 18	Environmental challenges (pollution, flooding, land issues)	Switzerland	State Level (Environmental Regulations), City Level (Local Management)	Unsafe conditions for tenants; Reduced investment attractiveness	(Marnane & Greenop, 2023)

The study presents a comprehensive analysis of barriers to the development and implementation of RH across various countries, illuminating the multifaceted challenges that impede progress in this sector. A deeper examination of these barriers reveals common economic challenges, particularly prevalent in lower-middle-income countries. Notably, the research identified that nations such as Nigeria, Ghana, India, and Papua New Guinea—all classified as lower-middle-income economies—face significant economic hurdles in implementing effective RH policies (Adetokunbo & Emeka, 2015). These challenges are manifested in several key areas, including high costs of serviced land, stringent rent control policies, and limited land availability in urban areas. In the specific context of India, the study highlights additional barriers that compound these challenges. Gupta and Gupta (2017) emphasize that high costs associated with land acquisition and development, coupled with stringent regulations and inadequate infrastructure, significantly hinder the growth of the RH sector. These factors create a formidable obstacle to increasing the supply and improving the quality of RH options. The cumulative effect of these barriers is particularly detrimental to low and middle-income populations. As Attia (2021) notes, the constrained supply and compromised quality of RH units make it increasingly difficult for these demographic groups to access affordable housing options. This situation exacerbates existing housing inequalities and poses a significant challenge to urban development and social equity goals.

Public unawareness regarding RH, particularly in India, significantly reduces demand and investor confidence, leading to underutilization of the existing RH stock (Gupta & Gupta, 2017). Resistance to housing mortgages and loans is another critical barrier, limiting the pool of potential tenants and dampening investor interest in countries like the USA, Australia, and several others (Adabre & Chan, 2019). Policy conflicts between government authorities create regulatory uncertainty, deterring cohesive investment strategies (Osei-Kyei et al., 2017). The absence of subsidized government incentives for private housing entities in England further exacerbates the problem by reducing the supply of RH (Oyebanji et al., 2017).

High capital costs, including interest rates on loans, are a significant barrier in the UK, where financing costs deter investment in others (Adabre & Chan, 2019). Similarly, increasing rent compared to income in numerous countries, including the USA and Australia, makes housing unaffordable for many, reducing demand and investment returns (Chan & Adabre, 2019). However, these countries have implemented various affordable housing policies to provide tax credits to private housing entities investing in the affordable housing sector. Stringent rent control policies in Nigeria limit landlords' ability to adjust rents, making investments less profitable (Muhammad & Johar, 2018). Inflexible rental agreements in the Netherlands and other countries reduce the rental market's attractiveness by discouraging tenants and landlords (Abidoye et al., 2022).

High land prices in Hong Kong, China, and other nations increase development costs, deterring investment due to reduced profitability (Makinde, 2013; Muhammad & Johar, 2018). Negative attitudes toward social mix, particularly in India, limit rental options and lead to segregation, reducing the attractiveness of investment (Roy et al., 2018). Limited land availability in urban areas for RH projects in Nigeria further increases costs and deters investment (Ogwueleka, 2011). Poor stakeholder engagement and communication, particularly in middle-income cities, lead to misaligned expectations and reduced project success (Oluleye et al., 2020). Low land utilization for high-density development in Nigeria limits the availability of rental units and reduces investment returns (Ezennia, 2022). Deficient infrastructure for housing in India affects project viability, deterring investment and reducing tenant interest (Agarwal et al., 2021). Additionally, substandard RH design and construction in Nigeria result in unsafe conditions and high maintenance costs, deterring tenants and investors (Mukhtar et al., 2016). The insights gained from this comprehensive analysis are crucial for developing sustainable and scalable solutions for the RH sector, particularly in lower-middle-income countries facing similar challenges (Sohaimi & Shuid, 2023). This study contributes significantly to the global discourse on affordable and sustainable housing by meticulously identifying these critical barriers and proposing effective interventions.

2.3 Data collection

The study employs a comprehensive questionnaire survey to achieve its objectives and collect quantifiable data, following a meticulous design process to ensure reliability and validity. The questionnaire, based on the 18 CSBs identified from the literature, was crafted with three primary objectives: to determine the criticality of each CSB, to assess the agreement level between academic and industrial experts on the ranking of these CSBs, and to categorize the CSBs into underlying groups. Structured in two sections, the questionnaire first gathers background data from respondents in Section A to establish the reliability of their responses before proceeding to further analysis. Section B presents the CSBs using a 5-point Likert scale, ranging from 1 (Very Important) to 5 (Very Unimportant), a format chosen for its brevity and effectiveness in capturing the perceived importance of each barrier (Pitale, Sadhukhan, et al., 2023). To ensure comprehensiveness, the questionnaire concludes with an opportunity for respondents to identify and rate any additional critical barriers to RH they deem significant, thereby allowing for the capture of potentially overlooked factors. This thoughtful design ensures a thorough exploration of the CSBs while maintaining a user-friendly format that encourages meaningful participation from the diverse pool of experts surveyed.

A rigorous review and refinement process was implemented to ensure the questionnaire's validity and effectiveness. Initially, two professors and three research associates, all experts in affordable housing and urban planning, conducted a thorough review. This expert evaluation aimed to validate the questionnaire's accuracy, ensure respondent comprehension, assess acceptability, and confirm its relevance to the study context (Mukhtar et al., 2016). The experts also scrutinized the appropriate use of technical terms and the comprehensiveness of the barrier list, leading to revisions based on their constructive feedback. A pilot survey involving eight additional field experts was conducted following this expert review to refine the questionnaire further. This pilot phase was crucial in identifying potential ambiguities or issues that might have been overlooked during the initial review, thereby validating the reliability and clarity of the questions (Sadhukhan et al., 2015). Furthermore, it served as a critical tool for identifying and mitigating potential biases in the data collection process. The research team meticulously analyzed feedback from the pilot participants, making necessary adjustments such as rephrasing ambiguous questions, eliminating leading or loaded inquiries, and ensuring a balanced representation of all CSBs. To ensure that the respondents completely comprehended the context, the questionnaire incorporated a preliminary question about the outcomes or goals for RH. This strategic approach not only informed respondents about the objective of the study but also solicited their opinions on these outcomes, enabling them to rate the criticality of the barriers more accurately to achieving these goals (Adabre & Chan, 2019).

Following the rigorous development process, the finalized questionnaire was distributed to a carefully selected group of housing experts from both academic and industrial sectors. These experts were identified based on their publications in top-tier journals and through member directories, ensuring a knowledgeable and diverse respondent pool. To maximize the response rate, the questionnaire was administered via email using Google Forms, an accessible online platform. Additionally, participants were encouraged to forward the questionnaire to other relevant experts, employing a snowball sampling technique to expand the reach. Out of approximately 115 questionnaires distributed, 36 valid responses were received, yielding a response rate of 30%. Given the challenges in soliciting expert opinions, this response rate is considered representative and acceptable in the context of expert opinion surveys, surpassing response rates in similar studies within the literature. Moreover, the sample size of 36 meets the threshold of at least 30 respondents, generally deemed sufficient for statistical analysis in social science research (Adabre & Chan, 2019; Mokkink et al., 2022). The comprehensive research framework, including the various stages of the study, is illustrated in Figure 2, providing a visual representation of the methodological approach. This meticulous survey design and administration process ensured the collection of high-quality, representative data, offering a robust foundation for analyzing the CSBs in RH development.
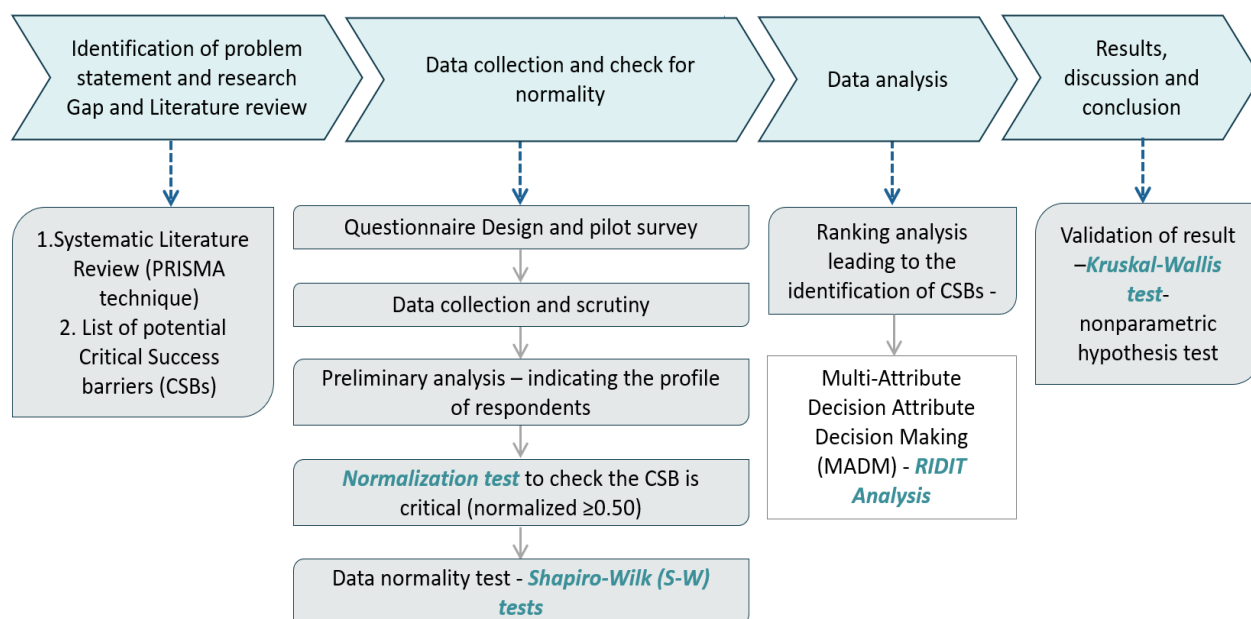
Figure 2. Research framework for the study.

2.4 Data Interpretation

Following data collection, the study employs a comprehensive analytical approach to interpret and derive meaningful insights from the survey responses. Initially, descriptive statistics were used to summarize the respondents' backgrounds and provide an overview of the data. The database undergoes cleaning and a preliminary review to ensure data adequacy and quality. This step is crucial for assessing the reliability and credibility of the responses (Chan & Adabre, 2019; Kar et al., 2024). For the quantitative analysis, the study utilizes IBM SPSS 29 for statistical tasks and MS Excel for detailed calculations. To determine the relative importance of the identified CSBs, the study employs the Relative to an Identifiable Distribution Integral Transformation (RIDIT) analysis, a Multi-Criteria Decision Analysis (MCDA) technique.

In 1958, Bross coined the term RIDIT, drawing inspiration from existing statistical transformations such as Probit and Logit, and emphasizing the method's distinctive approach to data analysis (Mandal & Dey, 2022). Over time, RIDIT has established itself as a valuable statistical tool for comparing responses on ordinal scales. Its effectiveness in handling Likert scale data, frequently employed in survey questionnaires, makes it particularly relevant for research involving ordered categorical responses (Sarkar & Banerji, 2024). One of the key advantages of RIDIT analysis is its distribution-free nature, meaning it makes no assumptions about the distribution of the studied samples (Bross, 1958). This characteristic is particularly significant when dealing with ordinal data or ranked responses, as in this study. Instead of relying on any theoretical distribution, RIDIT analysis utilizes the relative distribution of the reference population under examination. This approach requires fewer assumptions, simplifying computations and interpretations (Sadhukhan et al., 2015). The RIDIT method allows for a robust ranking of the CSBs based on their perceived importance, providing a clear prioritization that can inform policy recommendations and future research directions. The detailed RIDIT analysis procedure will be presented in the subsequent section, including the step-by-step calculations and interpretation of results. This analysis will provide a comprehensive understanding of how the various CSBs are prioritized by the housing experts surveyed, offering valuable insights into the most critical barriers facing RH policy implementation in urban India.

3. Results
3.1 Respondent profile

The survey successfully gathered responses from diverse stakeholders in the RH sector. Table 2 provides a detailed breakdown of the respondents' profiles, highlighting the distribution across

various professional roles, geographical locations, years of experience, and areas of housing expertise.

Table 2: Respondents' Detail.

Profession	No. Of response (36 nos.)	Percentage
Academic/researcher	4	11.11%
Architect	3	8.33%
Project/Construction managers	4	11.11%
Financial institutions	4	11.11%
Planner	6	16.67%
Tenants	8	22.22%
Local government officials	7	19.44%
Geographical location	**No. Of response (36 nos.)**	**Percentage**
Tier 3	5	13.89%
Tier 2	9	25.00%
Tier 1	22	61.11%
Years of experience	**No. Of response (36 nos.)**	**Percentage**
<10 years	5	13.89%
11-20 years	19	52.78%
>20 years	12	33.33%
Housing expertise domain	**No. Of response (36 nos.)**	**Percentage**
Public housing	9	25%
Social housing	14	38.88%
Cooperative housing	8	22.22%
Others	5	13.88%

The survey aimed to capture a broad range of stakeholder perspectives, with tenants (22%) and local government officials (19%) forming the largest groups of respondents. This distribution ensures that the study incorporates both user experiences and policy implementation insights. The inclusion of planners (16.67%), academics/researchers (11.11%), project/construction managers (11.11%), financial institutions (11.11%), and architects (8.33%) further enrich the dataset with diverse professional viewpoints. Notably, the geographical distribution of respondents shows a concentration in Tier 1 cities (61.11%), providing valuable insights into urban housing challenges in major metropolitan areas. The representation from Tier 2 (25%) and Tier 3 (13.89%) cities offers a comparative perspective on housing issues across different urban scales. The respondents' extensive experience in the housing sector adds significant credibility to the findings. An overwhelming majority (86.11%) possess over ten years of experience, with 33.33% having more than two decades in the field. This depth of experience enhances the reliability of the insights gathered. The diversity in housing expertise domains, spanning social housing (38.88%), public housing (25%), cooperative housing (22.22%), and other forms (13.88%), ensures a comprehensive understanding of various housing models and their associated challenges.

3.2 Descriptive analysis

Building upon the insights gained from the respondent profile, the study proceeded with a descriptive analysis to determine the relative criticalities of each of the CSBs. Normalization scores were computed based on the mean values of respondents' ratings to facilitate meaningful comparisons across different barriers. Normalization is crucial in this context as it brings the data to a standard scale without distorting differences in the ranges of values, enabling a more accurate and equitable comparison of the criticalities of different barriers. The criticality assessment was based on these normalized scores, with barriers achieving scores of 0.5 or higher being considered for further analysis (Osei-Kyei & Chan, 2017). This threshold ensures that only the most critical barriers are prioritized for detailed examination, focusing the study on the most significant challenges perceived by the expert respondents.

In cases where barriers shared identical normalized scores, their standard deviations (SD) were used as a tiebreaker for ranking. Barriers with lower SDs received higher rankings, indicating more consistent agreement among experts about the criticality of these barriers (Adabre et al., 2020). Table 3 presents the results of this descriptive analysis, showcasing the normalized scores and SDs.

Table 3: Normalization score for CSB to Rental Housing.

Barrier code	Mean	Standard deviation	Normalization score
CSB 1	**2.69**	**1.00**	**0.00* (Rejected)**
CSB 2	4.50	0.50	0.95
CSB 3	4.41	0.5	0.91
CSB 4	4.52	0.50	0.97
CSB 5	3.97	0.81	0.67
CSB 6	4.38	0.49	0.89
CSB 7	4.44	0.55	0.92
CSB 8	4.58	0.5	1.00
CSB 9	3.72	1.36	0.54
CSB 10	3.75	1.33	0.55
CSB 11	4.25	0.73	0.82
CSB 12	4.52	0.60	0.97
CSB 13	3.72	1.30	0.54
CSB 14	3.80	1.19	0.58
CSB 15	4.41	0.5	0.91
CSB 16	4.41	0.5	0.91
CSB 17	4.47	0.55	0.94
CSB 18	**3.02**	**1.53**	**0.17* (Rejected)**

Note: Normalized score = (mean - minimum mean)/ (maximum mean - minimum mean)
* The barrier is rejected if the normalized value is less than 0.50.
As a result of this analysis, CSB 1 and CSB 18 were excluded from further consideration due to their low normalized scores, indicating that they are not critical barriers based on the respondents' perceptions.

3.3 Data Normality

Before conducting any statistical analysis, it was crucial to assess the normality of the data distribution to determine the most appropriate statistical approach. The Shapiro-Wilk (S-W) test was employed for this purpose, given its effectiveness for small to moderate sample sizes ($n < 50$) (Shapiro & Francia, 1972). With a sample size of 36 in this study, the S-W test was deemed particularly appropriate due to its enhanced sensitivity in detecting deviations from normality in smaller datasets. The procedure for the S-W test involves formulating the null hypothesis, which is that the data follows a normal distribution, and the alternative hypothesis, which is that it does not. Using IBM SPSS 29, the test can be conducted by inputting the dataset and obtaining a test statistic and a p-value. The results from the test showed statistics ranging between 0.619 and 0.867, with p-values significantly below the 0.05 threshold at a 95% confidence level. These findings suggest that the data does not meet the criteria for normality, implying that non-parametric methods are more appropriate for further analysis (Yamanappa et al., 2018). RIDIT analysis was selected as the most appropriate Multi-Attribute Decision Making (MADM) technique for its particular strengths in handling ordinal data from Likert scales and its ability to provide robust rankings without making assumptions about the underlying distribution of the data (Bross, 1958; Sadhukhan et al., 2015).

One of the critical advantages of RIDIT analysis is its applicability in situations, where traditional statistical methods, such as chi-square tests or t-tests, may not be appropriate or sufficient. Unlike these methods, RIDIT analysis is distribution-free, meaning it makes no assumptions about the distribution of the studied samples (Bross, 1958). Instead of relying on any theoretical distribution,

RIDIT analysis utilizes the relative distribution of the reference population under examination. This approach requires fewer assumptions, simplifying computations and interpretations (Sadhukhan et al., 2015). These characteristics make RIDIT a robust choice for evaluating ordinal data or ranked responses without relying on specific distributional assumptions (Pitale, Parida et al., 2023; Pitale, Sadhukhan et al., 2023).

3.4 Multi-Attribute Decision Making (MADM) - RIDIT analysis

The RIDIT scoring method was employed to generate a rank order of the selected indicators based on the perceptions captured from the survey respondents (Kar et al., 2024; Mandal & Dey, 2022; Sadhukhan et al., 2015). The detailed algorithm for RIDIT analysis is presented below.

Step 1: Identify a reference dataset - Use the complete survey responses as the reference for ordinal data from a Likert scale (Table 4).

Step 2: Compute the frequency 'F_j' for each response category - Calculate the frequency F_j for each response category, denoted by j, where j = 1, 2, ……, n (Table 4).

Step 3: Determine the Midpoint Accumulated Frequency - Find the midpoint accumulated frequency F_j for each response category (Table 4).

$$F_1 = \frac{1}{2} f_1 \qquad\qquad (1)$$

$$F_j = \frac{1}{2} f_j + \sum_{k=1}^{j} f_k \quad \text{where, j = 1, 2, 3, …, n} \qquad (2)$$

Step 4: Calculate the RIDIT Value for Each Category **-** Compute the RIDIT value R_j for each category in the reference dataset (Table 4).

$$R_j = \frac{F_j}{N} \quad \text{where, j = 1, 2, 3, …, n} \qquad (3)$$

Here, N represents the total number of responses in the survey. By definition, the expected value of R for the reference dataset is 0.5.

Table 4: RIDIT dataset used for reference in calculations.

Barrier Code	5 -POINT LIKERT SCALE DATA					Total (π_i)
	Very Important -(5)	Important - (4)	Relatively Important - (3)	Unimportant - (2)	Very Unimportant - (1)	
CSB 2	18	18	0	0	0	36
CSB 3	15	21	0	0	0	36
CSB 4	19	17	0	0	0	36
CSB 5	10	16	9	1	0	36
CSB 6	14	22	0	0	0	36
CSB 7	17	18	1	0	0	36
CSB 8	21	15	0	0	0	36
CSB 9	11	16	3	0	6	36
CSB 10	14	10	4	5	3	36
CSB 11	15	15	6	0	0	36
CSB 12	21	13	2	0	0	36
CSB 13	9	20	0	2	5	36
CSB 14	11	15	5	2	3	36
CSB 15	15	21	0	0	0	36
CSB 16	15	21	0	0	0	36
CSB 17	18	17	1	0	0	36
fi	243	275	31	10	17	**576**
1/2 * fi	121.5	137.5	15.5	5	8.5	
Fj	121.5	380.5	533.5	554	567.5	
Rj	0.210	0.660	0.926	0.961	0.985	

Step 5: Compute the RIDITs (r_{ij}) and mean RIDITs (ρ_i) for comparison datasets (Table 4).

$r_{ij} = \frac{Rj \, X \, \pi_{ij}}{\pi_i}$ where i = 1, 2, 3, …, m; 'm' = number of Likert scale items $\qquad$ (4)

Here, π_{ij} is the frequency of category j for the ith scale item, and π_i is the total frequency for all categories (Table 5).

$\pi_i = \sum_{k=1}^{n} \pi_{ik}$ $\qquad$ (5)

$\rho_i = \sum_{k=1}^{n} r_{ik}$ $\qquad$ (6)

Step 6: Establish a 95% Confidence Interval for ρ_i

$\rho_i \pm \frac{1}{\sqrt{3\pi_i}}$ $\qquad$ (7)

Table 5: Comparison of RIDIT calculations across the respondents' sample dataset.

Code	(5)	(4)	(3)	(2)	(1)	ρ_i	LB	UB	Square of $(\rho_i - 0.5)$	W - Value
CSB 2	0.105	0.33	0	0	0	0.436	0.38	0.491	0.004	1.733
CSB 3	0.088	0.385	0	0	0	0.473	0.418	0.529	0.001	0.301
CSB 4	0.111	0.312	0	0	0	0.423	0.368	0.479	0.006	2.473
CSB 5	0.059	0.294	0.232	0.027	0	0.61	0.555	0.666	0.012	5.125
CSB 6	0.082	0.404	0	0	0	0.486	0.43	0.541	0	0.086
CSB 7	0.1	0.33	0.026	0	0	0.456	0.4	0.511	0.002	0.827
CSB 8	0.123	0.275	0	0	0	0.398	0.343	0.454	0.01	4.345
CSB 9	0.064	0.294	0.077	0	0.164	0.599	0.544	0.655	0.01	4.153
CSB 10	0.082	0.183	0.103	0.134	0.082	0.584	0.529	0.64	0.007	2.973
CSB 11	0.088	0.275	0.154	0	0	0.518	0.462	0.573	0	0.129
CSB 12	0.123	0.239	0.051	0	0	0.413	0.357	0.469	0.008	3.175
CSB 13	0.053	0.367	0	0.053	0.137	0.61	0.554	0.666	0.012	5.082
CSB 14	0.064	0.275	0.129	0.053	0.082	0.604	0.548	0.659	0.011	4.532
CSB 15	0.087	0.385	0	0	0	0.473	0.418	0.529	0.001	0.301
CSB 16	0.087	0.385	0	0	0	0.473	0.418	0.529	0.001	0.301
CSB 17	0.105	0.311	0.025	0	0	0.443	0.388	0.499	0.003	1.358
										36.891

Kruskal-Wallis value (*W*) = 36.891; Chi-Squared value χ2(16-1) = 24.99 at 0.05 significance level

LB is the lower bound of the 95% confidence interval for the mean RIDIT $\boldsymbol{\rho_i}$
UB is the upper bound of the 95% confidence interval for the mean RIDIT $\boldsymbol{\rho_i}$

Note: The relevance levels indicated by respondents on a scale from 1 to 5 are represented by the numbers in parenthesis.

Step 7: Utilise Kruskal-Wallis statistics 'W' (a non-parametric statistical test) to test the hypothesis - The use of the Kruskal-Wallis 'W' test in this context serves as a validation technique, confirming the reliability and accuracy of the survey data findings.

Null Hypothesis, Ho : $\forall i, \rho_i = 0.5$

Alternative Hypothesis, Ha : $\exists i, \rho_i \neq 0.5$

$W = 12 \sum_{i=1}^{m} \pi_i \, (\rho_i - 0.5)^2$ $\qquad$ (8)

The statistic 'W' adheres to a chi-squared (χ^2) distribution with $m-1$ degrees of freedom.

To reject the null hypothesis Ho, the confidence intervals of the mean RIDIT scores (ρ_i) was critically examined. If a mean RIDIT score (ρ_i) is significantly different from 0.5, indicating a notable difference in respondents' reactions to that item, providing evidence to reject the null hypothesis. Conversely, if it falls within the confidence interval of ρ_i, the response patterns do not significantly differ. A lower ρ_i suggests a reduced likelihood of a negative response trend. Overlapping confidence

intervals of ρ_i value across different items implies statistically similar response patterns among respondents. In this study, the Kruskal-Wallis value (*W*) of 36.891 was calculated and compared with the Chi-squared value (χ^2) of 24.99 for 15 degrees of freedom at a 0.05 significance level. This implies that the calculated Kruskal-Wallis value (36.891) exceeds the critical Chi-Squared value (24.99). As a result, the null hypothesis (Ho) was rejected, indicating significant differences in the mean RIDIT scores (ρ_i) among the various groups. This outcome supports the reliability and validity of the survey data, confirming that the observed differences are statistically significant and not due to random chance (Mandal & Dey, 2022). Consequently, the findings provide robust evidence that respondents perceive specific barriers as more critical than others.

3.5 Prioritization of CSB for Rental Housing using RIDIT

As part of the second objective, the survey employed the RIDIT method to analyze the importance ratings assigned to selected CSBs by respondents. This analytical approach facilitated the derivation of rankings to identify critical barriers in RH policy implementation. Table 6 presents the comprehensive results, where CSBs are ranked according to their RIDIT scores derived from survey responses.

The statistical significance of the findings is substantiated by comparing the critical chi-squared value (χ^2) with the Kruskal-Wallis (*W*) value. At a 0.05 significance level, the critical chi-squared value (χ^2) with 15 degrees of freedom [χ^2 (16-1) = 24.99] was significantly lower than the calculated Kruskal-Wallis (*W*) value of 36.89. This comparison validates the conclusion that respondents perceive certain indicators as significantly more critical than others, lending robust statistical support to the prioritization. In interpreting the RIDIT scores, it is crucial to note that a lower ρ_i value corresponds to a higher rank. This inverse relationship indicates that responses for higher-ranked barriers were more frequently at the extremes of the Likert scale, such as strong agreement or high criticality ratings. This pattern suggests a consensus among respondents regarding the most pressing challenges in RH policy implementation.

The RIDIT analysis revealed a clear hierarchy of critical barriers, with the top three identified as inflexible rental agreements ($\rho_i = 0.398$), negative attitudes to social mix ($\rho_i = 0.413$), and the absence of government incentives for private housing entities ($\rho_i = 0.423$). These findings underscore the complex nature of the challenges facing RH policy implementation. Identifying inflexible rental agreements as the most critical barrier highlights the need for regulatory reform to enhance flexibility and adaptability in housing contracts. The prominence of negative attitudes towards social mix as the second most critical barrier points to deep-seated social and cultural issues that may impede the success of inclusive housing policies. The third-ranked barrier, the absence of government incentives for private housing entities, emphasizes the crucial role of public-private partnerships and the need for supportive policy frameworks to stimulate investment in the RH sector. Collectively, these results illuminate the multifaceted nature of obstacles in RH policy implementation, spanning legal, social, and economic domains. They suggest that effective solutions will require a holistic approach, addressing regulatory and economic factors, social attitudes, and stakeholder engagement.

Table 6: RIDIT Calculations and CSB Indicator Rankings from the Sample Dataset.

Code	Barrier	Thematic grouping code	ρ_i	Priority Ranking
CSB 8	Inflexible rental agreements	RI	0.398	1
CSB 12	Negative attitudes to social mix	RI	0.413	2
CSB 4	Absence of government incentives for private housing entities	RI	0.423	3
CSB 2	Resistance to housing mortgages and loans	RI	0.436	4
CSB 17	Substandard rental housing design and construction	ID	0.443	5
CSB 7	Stringent rent control policies	RI	0.456	6
CSB 3	Policy conflicts between government authorities	RI	0.473	7

CSB 15	Low utilization of land for high-density development	ID	0.473	
CSB 16	Deficient infrastructure for housing	ID	0.473	
CSB 6	Increasing rent compared to income	EM	0.486	8
CSB 11	Limited supply of rental units against high demand	EM	0.518	9
CSB 10	High approval cost (high taxes and fees on developers)	EM	0.584	10
CSB 9	High cost of serviced land	EM	0.599	11
CSB 14	Poor stakeholder engagement and communication	ID	0.604	12
CSB 13	Limited land availability in urban areas	ID	0.61	13
CSB 5	High cost of capital (i.e., interest rates on loans)	EM	0.61	

RI = Regulatory and Institutional- related Barriers
EM = Economic and Market- related Barriers
ID = Infrastructure and Development- related Barriers
Note: A lower RIDIT score corresponds to a higher rank.

Further, the identified CSBs in the study were grouped into three distinct thematic sections to provide a clear and structured understanding of the barriers facing RH initiatives. This classification offers a comprehensive overview of the barriers and facilitates the development of targeted and practical solutions. The three thematic groups are—Regulatory and Institutional Barriers (RI), Economic and Market Barriers (EM), and Infrastructure and Development Barriers (ID). These categories were carefully delineated based on the nature and underlying causes of the identified barriers, ensuring a holistic approach to addressing RH challenges. The RI barriers encompass a wide range of issues that directly impact the governance and administrative framework of RH. The EM barriers include financial and market-driven challenges that impact the affordability and economic feasibility of RH. Lastly, the ID barriers address the physical and developmental aspects, focusing on the availability, quality, and sustainability of housing infrastructure. This classification ensures a comprehensive understanding of the barriers, facilitating targeted and practical solutions to improve RH initiatives.

4. Discussion and Policy level implication

This study addresses the significant challenges within the urban RH sector in India, revealing through RIDIT analysis that the most significant barriers are inflexible rental agreements (CSB 8), negative attitudes towards social mix (CSB 12), and the absence of government incentives for private housing entities (CSB 4). These barriers are critical and must be prioritized in the Indian housing market. However, achieving success in RH requires addressing all identified barriers comprehensively, not just the most significant ones. Studying these barriers as an interconnected system is essential because they are interdependent. Addressing barriers in isolation may lead to incomplete or ineffective solutions. For instance, reforming rental agreements without addressing the lack of government incentives might not attract the private investment necessary to expand the RH supply. Thus, each barrier influences and exacerbates the others, creating a complex web of challenges that must be tackled together.

4.1 Regulatory and Institutional - related Barriers (RI)

RI-related barriers were significantly measured in six indicator items: "inflexible rental agreements", "negative attitudes to social mix", "absence of government incentives for private housing entities", "resistance to housing mortgages and loans", and "policy conflicts between government authorities". A comprehensive strategy involving multi-level governance and policy reform is necessary to address these barriers. This strategy includes providing significant incentives to private entities investing in RH, such as tax credits for investors and interest-free loans for developers. These incentives should be implemented nationally, with the central government allocating funds to each state, which would then be responsible for disbursement and management. Additionally, rental agreement policies must be reformed to introduce flexibility and accommodate diverse tenant and landlord needs (Kadi et al., 2021). National guidelines should be established, while states could adapt these to local contexts.

Establishing a coordinated framework to align policies between different government levels and departments would reduce policy conflicts and ensure a unified approach to RH. Furthermore, nationwide awareness campaigns should be launched to educate the public about RH options and benefits, with state and local governments playing critical roles in executing these campaigns (Wan et al., 2017).

To further enhance this strategy, it is essential to establish a comprehensive monitoring and assessment system (Kissi et al., 2019). This approach would guarantee the efficient administration and adaptation of policies and incentives in response to feedback and changing circumstances. Periodic audits and evaluations should be carried out to evaluate the influence of these policies on RH development and occupancy rates (Keken et al., 2022). Additionally, establishing a collaborative environment among stakeholders, including tenants, landlords, developers, and government agencies, through regular forums and discussions can ensure that diverse perspectives are considered and integrated into policy decisions (Adabre & Chan, 2019).

4.2 Economic and Market – related Barriers (EM)

The indicators under the EM-related barriers include "increasing rent compared to income", "limited supply of rental units against high demand", "high approval cost", "high cost of serviced land", and "high cost of capital". To tackle this barrier, various strategies involving implementing rent control measures to ensure affordability, setting rent at 60% below the Average Median Income (AMI), can make RH accessible to low-income groups (Isalou et al., 2015). National policies should dictate these measures, while states manage implementation and monitoring. Encouraging the development of new rental units through public-private partnerships and incentives is also crucial (Węgrzyn, 2016). Providing subsidies or reduced pricing for serviced land to developers, particularly in high-demand areas, requires coordinated efforts at national, state, and local levels (Chan & Adabre, 2019). Additionally, reducing taxes and fees for developers to lower project costs will incentivize more developments (Adabre & Chan, 2019). This could be managed through state-level regulatory reforms supported by national policies. Offering low-interest loan programs or interest rate subsidies to developers will mitigate high capital costs, with the national government providing funding and state agencies managing distribution and oversight (Olayiwola & Ajala, 2022).

Further measures include ensuring transparent and efficient allocation of funds and resources (Osei-Kyei & Chan, 2015). Establishing an RH development fund at the national level, which states can tap into for specific projects, would ensure dedicated financial support for RH. Lastly, implementing regular market assessments to monitor rent levels and housing demand can help adjust policies and incentives as needed to remain responsive to market conditions (Gupta & Gupta, 2017).

4.3 Infrastructure and Development – related Barriers (ID)

The indicators for ID-related barriers were significantly visible in "substandard rental housing design and construction", "low utilization of land for high-density development", "deficient infrastructure for housing", "poor stakeholder engagement and communication", and "limited land availability in urban areas". This strategy involves enforcing stringent national building codes and standards to ensure high-quality RH construction with local enforcement (Maliene & Malys, 2009). modifying zoning regulations to encourage high-density development will optimize land use, increase rental units, and require substantial investments in infrastructure projects, including utilities, transportation, and community facilities (Tandel et al., 2016). These efforts should be managed at the city level with state-level support, ensuring comprehensive development. The central government should act as the facilitator, providing national funds to states. States, in turn, should act as providers who oversee project implementation, ensuring that local governments manage ongoing maintenance effectively (Government of India, 2015). Additionally, creating a streamlined permitting process for RH projects can reduce delays and costs associated with development. Establishing one-stop-shop permit offices or online platforms can facilitate quicker approvals and better coordination among regulatory bodies. Regular reviews and updates of zoning laws and building codes will ensure they remain relevant and

supportive of current housing needs and technological advancements (Kissi et al., 2019). Lastly, fostering community engagement in the planning and development process ensures that the basic infrastructure facilities meet the needs and preferences of residents (Parikh et al., 2015). Public consultations, workshops, and forums can provide valuable feedback and build public support for new developments.

In addition to addressing each thematic barrier individually, it is essential to recognize the interdependencies among these barriers and develop integrated strategies that create synergy. For example, economic incentives for developers (EM) can be aligned with regulatory reforms (RI) to streamline processes and reduce bureaucratic hurdles. This comprehensive approach will ultimately lead to the success of RH initiatives.

5. Conclusion

This study has successfully identified and prioritized the CSBs in India's RH sector through RIDIT analysis, highlighting significant challenges such as inflexible rental agreements, negative social attitudes towards mixed-income housing, and the lack of government incentives for private housing investments. The research highlights the interdependence of these barriers, emphasizing the need for a holistic approach to address them effectively. Addressing these barriers requires comprehensive regulatory, economic, and infrastructural reforms. Policy recommendations include revising rental agreements to introduce flexibility, offering substantial incentives to encourage private investment in RH, and promoting high-density development through modified zoning regulations. The study highlights the importance of establishing collaborative frameworks that engage all relevant stakeholders from planning to project execution and management.

This research contributes significantly to the existing literature by offering a detailed framework for identifying and prioritizing CSBs in the RH sector, particularly in developing countries. RIDIT analysis not only quantifies the barriers but also provides a structured approach to addressing the most critical issues first, enhancing the feasibility and sustainability of RH projects. This methodological approach fills a crucial gap in existing research by providing specificity in addressing the unique challenges RH faces in India.

However, the study acknowledges limitations, such as potential biases in the choice of reference group or dataset that may skew analytical outcomes and the challenges posed by small sample sizes in distinguishing closely ranked categories using RIDIT scores (Kar et al., 2024). Despite these issues, the methodological approach effectively identifies and prioritizes CSBs, suggesting that further research could involve a gap analysis to optimize resource allocation.

Future research should focus on several key areas to ensure continuous improvement and adaptability of strategies: (1) Conduct comparative studies with nations experiencing comparable challenges with RH, such as Brazil, South Africa, and Malaysia. These countries have successfully implemented diverse housing laws and programs and may provide valuable insights and exemplary approaches that can be tailored to India's specific needs and circumstances. (2) Exploring the social dimensions of RH, including the impact of housing policies on social equity, community cohesion, and environmental sustainability. Understanding these social implications is crucial for promoting equitable and inclusive urban development. (3) Implementing longitudinal studies to track the long-term impacts of policy interventions and reforms. This could provide valuable insights into the effectiveness of various strategies over time and help refine approaches. (4) Investigating the potential of technology and digital solutions in addressing RH barriers, recognizing the increasing importance of these tools in urban development and housing policy.

By leveraging these research directions, policymakers and urban planners can develop more effective and sustainable housing strategies tailored to meet the dynamic needs of urban populations in developing countries. This study's findings and methodological approach provide a solid foundation for addressing the complex challenges in India's RH sector, potentially leading to improved urban development, enhanced quality of life, and more significant social equity in India's rapidly growing cities.

The insights gained from this research have the potential to impact housing accessibility and urban living conditions in India. By addressing the identified CSBs through comprehensive, evidence-based policies, India can work towards creating more inclusive, sustainable, and economically vibrant urban communities. This, in turn, can contribute to broader social and economic development goals, making this research a valuable contribution to both academic understanding and practical policy implementation in the field of urban housing.

Conflicts of Interest
The Authors declare that there is no conflict of interest.

Data availability statement
The data that support the findings of this study are available from the corresponding author, D.S., upon reasonable request.

Institutional Review Board Statement
Not applicable.

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