

Acceptability of Vertical Housing Developments in Southeast Asia: A Prisma Guided Systematic Review

Gus Basil C. Mortiz

Department of Human Settlements and Urban Development, University of Southeastern Philippines

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Email of Corresponding Author: gbcmortiz00257@usep.edu.ph

Abstract

This study examined the acceptability of vertical housing developments in Southeast Asia in response to rapid urbanization, land scarcity, and increasing demand for inclusive urban housing. Guided by a multidimensional view of housing acceptability and the PRISMA 2020 framework, the study used a systematic literature review design. It analyzed studies published from 2015 to 2025, with evidence drawn from Southeast Asian contexts including Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam. Data were gathered through Google Scholar, Scopus, ScienceDirect, and manual reference harvesting, then organized using a structured data extraction sheet. From 238 initial records, 20 studies met the inclusion criteria and were synthesized through narrative analysis. Findings showed that vertical housing acceptability is shaped by physical design, socio-cultural compatibility, environmental comfort, affordability, tenure security, governance, and resident participation. Key challenges included displacement, weak post-occupancy management, affordability burdens, vertical segregation, limited cultural fit, and insufficient longitudinal and intersectional evidence. The study concludes that vertical housing is not only a technical response to density but also a social, cultural, environmental, and institutional project. It recommends culturally responsive design, participatory planning, long-term affordability measures, post-occupancy evaluation, inclusive safety features, and stronger community-based governance. The study aligns most strongly with SDG 11, while also supporting SDGs 3, 5, 8, 9, 12, 13, 16, and 17. Its sustainability impact lies in promoting resident-centered, equitable, climate-responsive, and institutionally accountable housing systems for rapidly urbanizing Southeast Asian cities.

Keywords: Acceptability, Affordability, Governance, Livability, PRISMA, Southeast Asia, Sustainability, Urban Densification, Vertical Housing

1. Introduction

Vertical housing has become a major response to rapid urbanization, land scarcity, and the growing demand for inclusive urban development in Southeast Asia. Across the region, high-rise and multi-storey residential developments are promoted as tools for densification, land efficiency, housing provision, and sustainable urban futures. However, their acceptability remains uneven because residents evaluate vertical housing not only through physical design but also through affordability, cultural fit, tenure security, environmental comfort, governance, safety, and social belonging. This study synthesizes evidence on the factors that make vertical housing viable, livable, and socially acceptable across Southeast Asian contexts.

Southeast Asian cities face increasing pressure to accommodate growing urban populations while urban land becomes more limited. Vertical housing developments, broadly understood as multi-storey or high-rise residential buildings, have therefore become central to planning and housing strategies. They are framed not only as technical responses to density but also as mechanisms for social transformation, land justice, and sustainable urban futures (Ballesteros, 2020; Shatkin, 2017; Agustin & Susanti, 2017). Singapore and Malaysia have institutionalized vertical housing through long-term public investment and land-use planning, while Indonesia, the Philippines, Vietnam, and Thailand have used mixed public-private partnerships and resettlement programs, often directed toward informal settlers (Phang & Kim, 2022; Dharmayanti & Paturusi, 2019). Despite these policy directions, vertical living has produced mixed outcomes. Some studies associate vertical housing with land-use efficiency, energy performance, and environmental resilience, while others identify displacement, rising costs, weak infrastructure, and declining quality of life as persistent concerns (Putri et al., 2022; Aisyrafi & Andrea, 2024; Cruz & Domingo, 2020). Resident acceptability is shaped by cultural norms, perceived safety, community dynamics, design familiarity, and socio-spatial attachment (Astyuti et al., 2017; Prasetyo, 2019). In contexts where extended family living, informal livelihoods, and communal relations are important, relocation to vertical housing may disrupt everyday routines and weaken social networks (Trance, 2025; Berger & Bandyopadhyay, 2023).

The literature shows that acceptability is shaped by interrelated physical, social, environmental, economic, and institutional factors. Design-related factors include unit layout, ventilation, natural lighting, elevator access, circulation, and communal spaces. Studies in Malaysia and Indonesia emphasize that spatial configuration, natural ventilation, and shared facilities

affect resident satisfaction and perceived livability (Arshad & Arminda, 2022; Omar et al., 2018). Similar findings show that poor lighting, inadequate air circulation, cramped units, and limited communal areas reduce comfort and acceptance, especially among families used to horizontal living patterns (e.g., Astyuti et al., 2017; Omar et al., 2018; Arshad & Arminda, 2022). Socio-cultural compatibility is also central. Vertical housing is more acceptable when it supports familiar communal practices, informal interaction, family networks, and everyday social routines. Where vertical developments fail to reflect *kampung* or *barangay* life, residents may experience fragmentation and alienation (e.g., Prasetyo, 2019; Darnawan & Lubis, 2023). Shatkin (2017) argues that housing transformations in Asian cities reflect broader political-economic shifts, including land commodification and changing welfare arrangements. Environmental performance further affects acceptance. Aisyrafi and Andrea (2024) found that residents in tropical climates value shading, cross-ventilation, thermal comfort, and access to rooftop gardens. However, green design and bioclimatic features are not always equitably distributed, especially in low-cost developments, creating concerns about eco-exclusion. Economic factors, especially affordability and tenure security, influence whether residents view vertical housing as opportunity or burden. Vertical housing may promise formalized tenure and upward mobility (Ballesteros, 2020), yet rising maintenance fees, service charges, and unclear ownership arrangements can reduce long-term satisfaction. Dimalanta et al. (2025) show that affordability burdens in public-private vertical housing schemes affect residents' perception of legitimacy and sustainability. Institutional governance is equally important. Strong public support, integrated planning, and clear management structures improve acceptability, as seen in Singapore's HDB model (Phang & Kim, 2022). However, fragmented governance, unclear maintenance responsibilities, and weak enforcement contribute to building deterioration and resident dissatisfaction (Kushendar, 2023). Berger and Bandyopadhyay (2023) similarly show that weak post-occupancy management reduces trust and housing quality.

At the local level, vertical housing affects residents differently depending on location, housing type, and relocation history. Trance (2025) found that residents moved to high-rise resettlement projects in the Philippines struggled with employment access because of distance and inadequate transport. In Metro Manila, owner-occupied developments often produce stronger feelings of control and participation, while rental or socialized housing may create insecurity and limited decision-making power. Ortega (2016) highlights the role of community-led governance in improving resident satisfaction, while Swasto (2018) shows that resident-based management can support dispute resolution, maintenance, and safety. At the national level, Southeast Asian housing systems differ significantly. Singapore's housing model is widely recognized for combining affordability, institutional support, planning integration, and regulatory adaptability (Phang, 2021). Integrated planning in Singapore and parts of Malaysia, where housing is linked with transport, schools, healthcare, and services, has improved resident satisfaction (Doling & Ronald, 2020). In contrast, Indonesia and the Philippines often face challenges related to fragmented land governance, weak maintenance systems, and uneven investment, which affect long-term project success (Doling & Ronald, 2020; Manzano, 2021). At the regional and global levels, vertical housing is tied to sustainable urbanization, climate resilience, and inclusive densification. However, its success depends on more than density targets. Vertical housing must respond to residents' lived experiences, socio-cultural identities, environmental needs, and economic capacity. Without these considerations, verticalization may reproduce inequality, displacement, and vertical segregation.

This study is conceptually grounded in the view that housing acceptability is multidimensional. It cannot be measured only through physical structure, cost, or density. Instead, acceptability emerges from the interaction of spatial design, socio-cultural adaptation, environmental comfort, affordability, tenure security, governance, and lived experience. The review also draws from a PRISMA-guided systematic review approach to organize and synthesize fragmented scholarship across architecture, urban planning, housing policy, environmental design, and social studies. The PRISMA 2020 framework supports transparent and rigorous evidence selection (Page et al., 2021). In this study, vertical housing acceptability is understood as a resident-centered condition shaped by both infrastructure and social infrastructure, including trust, participation, institutional responsiveness, and community belonging.

Although research on vertical housing has expanded, much of the literature remains fragmented, case-specific, or focused on technical concerns such as architecture, energy performance, or affordability metrics. Few studies provide a systematic, comparative synthesis of how residents across Southeast Asia accept, adapt to, or resist vertical living. There is also limited analysis of how gender, age, class, ethnicity, disability, migration status, and family composition shape housing experience. Demographic differences are important. Older adults may struggle with elevators and compact indoor spaces, while younger residents may prioritize mobility and digital connectivity (Putri et al., 2022). Women, especially single mothers and female-headed households, raise concerns about safety in stairwells, shared spaces, and building peripheries (Amatayakul et al., 2023). These findings show that vertical housing is experienced unevenly, yet intersectional and feminist perspectives remain underdeveloped. The literature also lacks longitudinal evidence. Many studies examine vertical housing shortly after occupancy, leaving limited understanding of how acceptability changes over time as buildings age, communities adapt, or governance systems weaken. Policy frameworks often support verticalization but fail to institutionalize resident participation, post-occupancy evaluation, and feedback mechanisms. This study addresses these gaps by synthesizing evidence from 20 studies published between 2015 and 2025 to clarify the design, social, environmental, economic, and institutional conditions that make vertical housing acceptable in Southeast Asia.

This study most directly aligns with SDG 11 – Sustainable Cities and Communities because it examines how vertical housing can support inclusive, safe, resilient, and sustainable urban development. Its focus on affordability, livability, transport access, social integration, and resident satisfaction contributes to the broader goal of improving housing systems in rapidly urbanizing cities. It also supports SDG 3 – Good Health and Well-Being through its attention to thermal comfort, safety, ventilation, green spaces, and resident well-being (Aisyrafi & Andrea, 2024). SDG 5 – Gender Equality is relevant because the study identifies gendered safety concerns and the specific vulnerabilities of women-headed households (Amatayakul et al., 2023). SDG 8 – Decent Work and Economic Growth is connected to the effects of relocation on employment access and the need for housing designs that accommodate informal and home-based livelihoods. SDG 9 – Industry, Innovation and Infrastructure applies through the study's concern with resilient, adaptive, and well-managed housing infrastructure. SDG 12 – Responsible Consumption and Production and SDG 13 – Climate Action are relevant where vertical housing incorporates land efficiency, energy performance, green design, and climate-responsive tropical architecture (Putri et al., 2022; Aisyrafi & Andrea, 2024; Cruz & Domingo, 2020). SDG 16 – Peace, Justice, and Strong Institutions applies because governance, transparency, accountability, and resident trust strongly influence acceptability. SDG 17 – Partnerships for the Goals is also relevant because many vertical housing projects depend on coordination among governments, developers, communities, NGOs, and housing institutions.

This study contributes to multidisciplinary sustainability by linking housing design, urban planning, environmental performance, social equity, public policy, and community well-being. Environmentally, it highlights the importance of thermal comfort, ventilation, greenery, and climate-responsive design in tropical vertical housing. Socio-economically, it shows that affordability, tenure security, service fees, employment access, and inclusion shape whether vertical housing supports or undermines urban opportunity. Culturally, the study emphasizes that vertical housing must respond to local practices such as communal living, multigenerational households, informal economic activity, and neighborhood-based social relations. Institutionally, it shows that housing sustainability depends on transparent governance, maintenance capacity, resident participation, and post-occupancy feedback. From a policy perspective, the study supports a shift from density-driven housing delivery to resident-centered vertical urbanism, where housing is evaluated not only by the number of units produced but by its capacity to sustain dignity, belonging, safety, adaptability, and long-term community resilience.

2. Material and methods

2.1 Research Design

The study employed a systematic literature review design guided by the PRISMA 2020 framework (Page et al., 2021). This design was appropriate because research on vertical housing acceptability is dispersed across architecture, urban planning, housing policy, and environmental design. The review focused on synthesizing evidence about resident acceptability, satisfaction, perception, adaptation, and livability in vertical or high-rise housing developments.

2.2 Locale of the Study

The review focused on Southeast Asian countries where vertical housing has become a significant response to rapid urbanization and land scarcity. The geographic scope included studies conducted in countries such as Indonesia, Malaysia, the Philippines, Vietnam, Singapore, and Thailand. These settings were selected because they represent diverse housing systems, governance models, and urban development contexts across the region.

2.3 Respondents of the Study

Since the study was a systematic review, it did not directly involve individual respondents. Instead, the units of analysis were scholarly and policy-relevant publications that examined resident experience, housing desirability, satisfaction, adaptation, perception, or livability in relation to vertical housing. The reviewed studies included evidence from residents and communities affected by vertical housing developments, particularly in low-income, public,

2.4 Sample and Sampling Procedure

The review covered publications released between 2015 and 2025. Eligible materials included peer-reviewed journal articles, conference proceedings, institutional reports, and graduate theses. Studies were included if they were located in Southeast Asia, explicitly addressed acceptability or related concepts in vertical or high-rise housing, were written in English, demonstrated academic rigor or policy relevance, and used empirical or conceptual frameworks relevant to vertical housing. Studies were excluded if they focused only on technical or engineering aspects, were outside Southeast Asia, or did not address resident experience or housing desirability. The search initially identified 238 unique records. After screening titles, abstracts, and full texts, 218 studies were excluded, and 20 studies met the inclusion criteria for final synthesis.

2.5 Research Instrument

The study used a structured data extraction sheet to organize relevant information from each included study. The extraction process recorded the author or authors, year of publication, country or city, research objective, methodology, target population, main theme, and key findings. The literature search used a Boolean search string combining terms related to vertical housing, acceptability, satisfaction, perception, livability, and Southeast Asian countries.

2.6 Data Gathering Procedure

Data were gathered through searches in Google Scholar, Scopus, and ScienceDirect, supported by manual reference harvesting from review articles and institutional repositories. Search results were exported to a spreadsheet for screening. The screening was conducted in two stages. First, titles and abstracts were reviewed to remove irrelevant records based on the exclusion criteria. Second, full-text screening was conducted to confirm whether the remaining studies met the research objectives and inclusion requirements.

2.7 Data Analysis Techniques

The study used narrative synthesis because the included studies varied in methodology, including qualitative, quantitative, and mixed-method approaches. After extraction, the studies were grouped into thematic clusters related to design perception, socio-cultural adaptability, community livability, environmental satisfaction, governance, and affordability. The synthesis identified common patterns, differences, and recurring factors that influence vertical housing acceptability across Southeast Asian contexts. The review also acknowledged limitations, including its restriction to English-language publications and the possible exclusion of inaccessible grey literature or unpublished academic work.

3. Results and Discussion

3.1 Determinants of Vertical Housing Acceptability

3.1.1 Physical Design and Livability

The reviewed studies showed that design-related factors strongly influenced resident satisfaction and adaptation. Unit layout, natural ventilation, elevator access, lighting, space adequacy, and communal facilities were repeatedly identified as important features of acceptable vertical housing. Poorly designed units with limited light, weak air circulation, or insufficient space were associated with discomfort and low acceptance, especially among families accustomed to horizontal living arrangements (e.g., Astyuti et al., 2017; Omar et al., 2018; Arshad & Arminda, 2022). These findings indicate that vertical housing cannot be evaluated only by the number of units provided or the efficiency of land use. Design quality directly affects whether residents experience vertical living as livable, safe, and dignified. Natural ventilation, lighting, spatial layout, and access to green spaces enhance livability (Arshad & Arminda, 2022; Omar et al., 2018), but these features must be supported by governance systems that ensure maintenance, accessibility, and long-term usability.

3.1.2 Socio-Cultural Compatibility and Community Life

The results showed that socio-cultural compatibility was a central factor in acceptance. Residents were more likely to accept vertical housing when buildings supported informal interaction, communal practices, family networks, and everyday social routines. Studies found that when vertical developments failed to reflect kampung or barangay life, including shared corridors, informal economic activity, and close kinship ties, residents experienced social fragmentation and alienation (e.g., Prasetyo, 2019; Darmawan & Lubis, 2023). This suggests that vertical housing represents not only a physical relocation but also a transformation of social life. In societies shaped by horizontal, communal, and kinship-oriented living, the shift to verticality requires major spatial and relational adjustment. Shatkin (2017) explains that housing transformation in Asian cities reflects wider political and economic changes, including land commodification, decentralization, and shifts in welfare provision. When housing design ignores everyday cultural practices such as communal cooking, multigenerational living, and informal livelihoods, residents may resist vertical living even when physical housing conditions improve.

3.1.3 Environmental Performance and Resilience

The findings showed that residents valued environmental features that improved comfort and resilience, especially in tropical climates. Shading, cross-ventilation, rooftop gardens, thermal comfort, and green infrastructure were associated with higher acceptance. Aisyrafi and Andrea (2024) found that residents preferred vertical housing with shading devices, cross ventilation, and access to rooftop gardens, although these features were not consistently available in low-cost developments. These results show that environmental sustainability must be linked with social equity. Green and bioclimatic design can improve comfort and long-term adaptability, but their uneven distribution may reinforce exclusion when low-income residents receive poorly performing units while higher-income residents benefit from greener and more comfortable developments. In tropical Southeast Asia, vertical buildings with roof gardens, cross ventilation, and water-sensitive design were more acceptable to residents (Aisyrafi & Andrea, 2024), yet the concentration of these features in higher-cost projects raises concerns about eco-exclusion and green gentrification.

3.1.4 Affordability, Tenure, and Economic Inclusion

The review found that affordability and tenure security shaped whether residents viewed vertical housing as an opportunity or a burden. Vertical housing was often associated with formalized tenure and upward mobility (Ballesteros, 2020), but rising maintenance costs, service fees, and unclear ownership arrangements reduced satisfaction over time. Dimalanta et al. (2025) showed that affordability burdens in public-private partnership models weakened resident satisfaction. These findings indicate that affordability must be assessed beyond initial housing access. Long-term acceptability depends on whether residents can sustain payments, remain secure in their units, and avoid displacement through recurring costs. When vertical housing separates residents from livelihoods or imposes unaffordable fees, it may reproduce the insecurity it was intended to solve. Economic inclusion therefore requires attention to tenure clarity, service costs, transport access, and livelihood continuity.

3.1.5 Institutional Governance and Trust

The results showed that institutional credibility strongly influenced acceptance. Vertical housing gained stronger public support when institutions were transparent, responsive, and accountable, as seen in Singapore's HDB model (Phang & Kim, 2022). In contrast, weak governance, fragmented planning, unclear maintenance responsibilities, and poor enforcement contributed to deterioration and dissatisfaction in other settings (Kushendar, 2023). This demonstrates that vertical housing success depends on both physical infrastructure and social infrastructure. Singapore's HDB model combines architectural standardization with strong institutional support, although its transferability is limited by its distinct land tenure and fiscal systems (Phang & Kim, 2022). In countries where maintenance duties are unclear and resident participation is weak, infrastructure decline and distrust become more likely. Berger and Bandyopadhyay (2023) show that the absence of tenant associations and clear grievance mechanisms reduces trust and housing quality.

3.2 Challenges and Success Factors in Implementation

3.2.1 Displacement, Access, and Social Disruption

The findings revealed that relocation from informal settlements often disrupted employment, social networks, and community support systems. Trance (2025) found that residents moved to high-rise resettlement projects in the Philippines struggled to maintain employment because of distance and poor public transportation, which led some households to return to informal settlements. This suggests that vertical housing cannot succeed if it is disconnected from livelihoods, mobility, and social support. Relocation may improve physical shelter but still produce social and economic insecurity when residents lose access to work, transport, and familiar community networks. The difference between vertical form and existing cultural patterns can weaken social ties, especially in projects involving informal settlers (Trance, 2025).

3.2.2 Fragmented Governance and Maintenance Problems

The review showed that fragmented governance weakened long-term project performance. Berger and Bandyopadhyay (2023) documented inconsistent building management structures in Thai vertical housing, which contributed to infrastructure problems and resident dissatisfaction. Maintenance backlogs, waste mismanagement, unclear responsibilities, and security concerns became persistent issues when accountability mechanisms were weak. These results highlight the importance of post-occupancy governance. Vertical housing requires continuous management, resident engagement, and institutional responsiveness. Without clear lines of responsibility, even structurally improved housing can decline quickly. Strong governance systems, transparent maintenance arrangements, and resident feedback mechanisms are therefore necessary for sustaining trust and livability.

3.2.3 Vertical Segregation and Unequal Housing Quality

The findings showed that vertical housing often reproduced socio-economic inequality. Middle- and upper-income vertical enclaves commonly offered better amenities, security, and comfort, while public vertical housing for low-income residents was more likely to be underfunded and stigmatized (Manzano, 2021). This produced both symbolic and material inequality within the vertical city. This pattern shows that verticalization does not automatically create inclusive urban development. Instead, it may reinforce class divisions when housing quality, amenities, and maintenance differ sharply across income groups. Public housing projects for low-income families often experience weaker design quality and greater stigma, while higher-income developments are associated with comfort and prestige (Manzano, 2021). Equity in vertical housing therefore requires attention to service quality, maintenance, safety, and social integration across housing types.

3.2.4 Integrated Planning and Adaptive Housing Models

The review also identified success factors. Integrated planning models in Singapore and some parts of Malaysia, where housing was linked with transportation, education, healthcare, and other services, improved resident satisfaction (Doling & Ronald, 2020). Developments that allowed flexible use, such as home-based enterprises or multigenerational living, showed stronger potential for long-term sustainability. These findings suggest that acceptability improves when vertical housing is planned as part of a wider urban system rather than as isolated shelter. Housing linked to transport, services,

livelihood opportunities, and social facilities is more likely to support daily life. Flexible design also helps residents adapt vertical spaces to changing family, economic, and cultural needs.

3.3 Variation in Lived Experience

3.3.1 Housing Type and Tenure

The results showed that lived experience varied by housing type and tenure arrangement. Residents in owner-occupied developments generally reported stronger control, satisfaction, and willingness to participate in community upkeep (Ortega, 2016). In contrast, residents in rental or socialized housing reported weaker control, limited participation in decision-making, and greater vulnerability to eviction or rent increases. This indicates that tenure influences both material security and psychological attachment to place. Residents who feel secure are more likely to invest in community maintenance and collective life. In contrast, insecure tenure can weaken belonging and reduce participation, particularly when residents lack authority over housing decisions.

3.3.2 Governance Model and Resident Participation

The review found that governance models shaped resident experience. Community-managed buildings often developed informal systems for dispute resolution, safety, and maintenance. These practices sometimes performed better than distant or highly formal state-led property management systems (Swasto, 2018). Highly bureaucratic or privatized management structures were often viewed as unresponsive. These findings show that resident participation is a practical condition for housing sustainability. When residents are involved in managing shared spaces and addressing everyday concerns, vertical housing can become more responsive and socially cohesive. Community-based governance also helps bridge the gap between formal management systems and residents' lived realities.

3.3.3 Age, Gender, and Household Composition

The findings showed that adaptation differed by demographic profile. Older adults reported difficulty with elevators and compact indoor spaces, while younger residents prioritized mobility and digital connectivity (Putri et al., 2022). Single mothers and female-headed households raised concerns about safety in stairwells, communal areas, and building peripheries (Amatayakul et al., 2023). These results show that vertical housing is not experienced uniformly. Gender, age, and family composition shape how residents perceive safety, access, comfort, and autonomy. Women, especially single mothers and female heads of households, experience distinct concerns related to safety, accessibility, and isolation (Amatayakul et al., 2023). This underscores the need for intersectional approaches to housing design and governance.

3.4 Theoretical and Policy Gaps

3.4.1 Limited Conceptual and Intersectional Frameworks

The review found that few studies offered conceptual frameworks integrating spatial, cultural, and institutional aspects of acceptability. Existing models often draw from Western urban theories and do not fully account for Southeast Asian socio-spatial realities. The literature also lacks strong intersectional analysis, with limited attention to how race, ethnicity, disability, migration status, gender, age, and class interact in shaping housing acceptance. This gap limits both theory and policy. A more context-sensitive framework is needed to explain how residents in Southeast Asia negotiate vertical living through cultural practices, social networks, livelihood needs, and institutional relationships. The limited use of intersectional or feminist perspectives also weakens understanding of who benefits, who adapts, and who resists vertical relocation.

3.4.2 Lack of Longitudinal Evidence and Feedback Mechanisms

The findings showed that most studies assessed vertical housing shortly after occupancy, leaving limited evidence on long-term adaptation, infrastructure decline, social mobility, and changing resident satisfaction. Policy frameworks often support verticalization but lack strong mechanisms for resident participation, post-occupancy evaluation, and institutional feedback. This limits understanding of how acceptability develops or declines over time. Without longitudinal research, changes in resident well-being, building performance, governance quality, and community cohesion remain underexplored. Regular post-occupancy evaluations and feedback loops are necessary to prevent repeated design and governance failures and to support adaptive housing policy.

3.5 Toward Inclusive and Resilient Vertical Housing

The findings show that vertical housing acceptability depends on the interaction of design quality, cultural fit, governance capacity, affordability, environmental comfort, and social infrastructure. Acceptability improves when housing is participatory, context-sensitive, well-managed, affordable, and connected to everyday needs. It declines when projects produce displacement, social isolation, unaffordable costs, weak maintenance, or exclusionary urban forms. These results suggest that future vertical housing policy in Southeast Asia should move beyond density and unit production as primary measures of success. Vertical housing should be treated as a social, cultural, environmental, and institutional project. Its sustainability depends on resident-centered planning, adaptable design, transparent governance, inclusive safety measures, and long-term mechanisms for monitoring and improvement.

4 Conclusion & Recommendations

This review concludes that the acceptability of vertical housing in Southeast Asia is shaped by the interaction of design quality, socio-cultural compatibility, environmental performance, affordability, tenure security, governance, and social infrastructure. Although vertical housing responds to rapid urbanization and land scarcity, its success depends on whether it reflects residents' needs, cultural practices, economic capacity, and expectations for safety, dignity, and participation. The findings show that features such as natural light, cross-ventilation, shared spaces, institutional credibility, affordability, and participatory governance improve livability, while weak maintenance systems, fragmented governance, displacement, stigma, and limited inclusion reduce acceptance. Vertical housing is therefore not only a technical or architectural solution but also a social, cultural, political, and institutional project.

Future vertical housing policies and programs should integrate local cultural practices, social norms, and spatial habits into design while strengthening resident participation during planning and post-occupancy stages. Policymakers should ensure long-term affordability by regulating service fees, protecting tenure security, and preventing socio-spatial segregation. Housing programs should also include regular monitoring and evaluation of resident satisfaction, building performance, and social dynamics, with findings used to improve future designs and policies. Future frameworks should consider gender, age, ability, and family structure by incorporating safety features, inclusive design, and services for women, older adults, children, and persons with disabilities. Researchers should develop Southeast Asia-specific models of vertical housing acceptability, while citizens, NGOs, and housing groups should support community programs, resident integration, and micro-enterprise development within vertical communities.

The study was limited by its focus on English-language publications, which may have excluded relevant local-language studies and community-based narratives. The methodological diversity of the reviewed studies also prevented comparative meta-analysis, requiring reliance on narrative synthesis. In addition, many studies used small or localized samples, which limited generalizability, and the available literature provided limited longitudinal evidence on how vertical housing acceptability changes over time.

Compliance with ethical standards

This study adhered to institutional ethical standards in the conduct of academic research and systematic review procedures. Since the study used published literature and secondary sources, no direct human participants were involved; therefore, voluntary participation, informed consent, and personal confidentiality concerns were not applicable. All reviewed materials were properly acknowledged through citation, and no private or identifiable information was collected. Ethical approval was not required because the study did not involve human subject experimentation or primary data collection. The author declares no conflict of interest, acknowledges the contributions of the cited scholars and institutions, and retains responsibility for the accuracy, originality, and integrity of the manuscript, including respect for copyright ownership and proper use of all referenced works.

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