A Systematic Literature Review of Bridging Institutional and Financial Sustainability of Public Housing

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ABSTRACT

Public housing programs in Malaysia play a key role in addressing the housing needs of low-income groups. Despite contributing to social security and community well-being, the public housing sector continues to face major challenges that affect the quality of assets and the lives of residents. This study focuses on three (3) key issues in the Malaysian public housing sector, namely chronic lack of regular maintenance, uncontrolled increase in rent arrears and weaknesses in the institutional structure and coordination of oversight agencies. In many schemes, accumulated debts have reached alarming levels while high maintenance demands have resulted in inadequate repairs, building deterioration, and reduced residents' well-being. Based on these issues, the main objective of this study is to identify gaps in the enforcement of rent collection policies, analyse the adequacy of the revenue and expenditure structure to ensure maintenance sustainability, and examine the use of financial performance metrics in monitoring and reporting. The methodology used is a systematic and critical literature review, by screening and evaluating sources from academic journals, government reports and international comparative cases from Singapore and Germany published between 2010 and 2024. Reference selection was done based on quality and relevance criteria to ensure in-depth investigation. The results of the literature review reveal critical gaps: weak enforcement of rent collection policies; disproportionate expenditure on ongoing maintenance; and limited use of financial performance metrics. These gaps undermine the agency's ability to plan and implement long-term financial strategies. The paper concludes that a focus on institutional and financial frameworks is essential to enhance the fiscal resilience of Malaysian public housing. The main contributions of this study include the proposed implementation of a staggered rental scheme, the establishment of a mandatory reserve fund, the formation of an integrated agency governance council, and the use of financial performance-based reporting as well as a future research agenda guideline to develop long-term sustainability monitoring tools.

Keywords: Public Housing, Financial Sustainability, Public Housing Governance, Maintenance Funding, Rent Arrears, Policy Reform, Institutional Governance

INTRODUCTION

Public housing plays a pivotal role in ensuring access to affordable shelter for low-income populations in Malaysia (Liu and Ong, 2021). Public housing is a type of housing that is owned and operated by the public and falls under the control of governmental organizations (Bilal et al., 2019). Its forms vary across regions: social housing in Europe, subsidized housing in the United States and China, and large-scale institutional models such as Singapore's Housing Development Board (HDB). While successful cases show that robust institutions can ensure affordability and long-term viability, many developing countries continue to struggle with weak governance, rent arrears, and underfunded maintenance systems (Bilal et al., 2019; Azmy et al., 2023). In Malaysia, public housing programs such as the Program Perumahan Rakyat (PPR) and Perumahan

Awam (PA) have long served as critical instruments for supporting the B40 group. Malaysia's public housing has two forms of housing programs; public housing ownership and public housing rental (Pitting and Radzi, 2022; Rameli and Salleh, 2022). Public rental housing is supplied by governments or non-profit agencies with rentals that are typically set below market rates. This frequently involves dome form of subsidy which often includes the demand side such housing voucher or supply side such land leases to private developers (KRI, 2018). Since the inception of the Program Perumahan Rakyat (PPR) and other rental schemes such Smart Sewa at Selangor, public housing has functioned as both a social safety net and an instrument of urban policy. However, despite heavy government subsidies, the sector faces persistent challenges of financial sustainability, including poor rent recovery, insufficient maintenance funds, and fragmented institutional responsibilities across federal, state, and local levels. These persistent issues raise questions about the long-term sustainability of public housing institutions, particularly their financial resilience and operational efficiency. While existing studies have examined individual aspects of public housing such as maintenance management (Mohamad, Ridzuan, & Abd Rahman, 2019), arrears control (Kunasekaran, 2025), or financial frameworks (Sharafeddin & Arocho, 2024), few have systematically analyzed the relationship between institutional governance and financial sustainability. Most of the literature identifies problems but provides limited integrated solutions that combine governance reforms with financial innovations. This gap creates uncertainty about how Malaysian public housing institutions can ensure the livability of residents and the long-term viability of investments. By focusing on governance structures, enforcement mechanisms, and financial practices, it seeks to develop an institutional framework that can stabilize and strengthen the long-term financial sustainability of public housing in Malaysia. Internationally, countries like Singapore and Germany demonstrate that strong institutional frameworks and robust financial strategies are crucial for sustainable housing management. This study situates itself within this global discourse, aiming to bridge institutional governance and financial sustainability as a unified research and policy agenda.

LITERATURE BACKGROUND

Institutional Sustainability in Public Housing

Institutional sustainability refers to the capacity of housing agencies, regulatory bodies, and policy frameworks to maintain effective governance, coordination, and accountability over time. The interaction of government policies with public housing projects reveals significant governance structures throughout Malaysia, explaining the roles of various stakeholders, including the federal and state governments, local authorities, and the private sector. The federal government is primarily responsible for funding and regulating housing projects, while state governments handle land allocation and participant selection. This governance framework is essential in promoting sustainable housing by ensuring that projects align with national policies aimed at enhancing sustainability outcomes (Latiff et al., 2020). In the context of Malaysia's public housing, institutional fragmentation has long been a critical barrier to sustainability. Multiple actors including federal ministries (KPKT), state housing boards, and local authorities such as DBKL operate with overlapping mandates, often resulting in inconsistent policy enforcement and weak coordination (Samikon et al., 2013).

This fragmentation manifests in several ways. First, enforcement of rent collection is inconsistent across states, with some authorities tolerating prolonged arrears due to political sensitivities or administrative backlogs (Kunasekaran, 2025). Second, coordination between agencies is often limited, leading to duplication of tasks and unclear accountability lines (Brackertz, Wilkinson, & Davison, 2018). Finally, the absence of integrated governance councils restricts evidence-based policymaking and undermines long-term planning (Wijburg & Waldron, 2020).

By contrast, international experience demonstrates that strong and coherent institutional frameworks are crucial for sustainable housing outcomes. Singapore's Housing and Development Board (HDB) is frequently cited as a model of centralized governance, with integrated planning and enforcement mechanisms that allow for consistent implementation (Phang & Helble, 2016). In Germany, social housing is often managed by cooperative associations that operate within well-defined legal frameworks, ensuring clear lines of accountability. Similarly, the Netherlands entrusts housing associations with significant autonomy but regulates them closely at the municipal and national levels to safeguard affordability and sustainability (García-Lacalle & Torres, 2021).

Table 1 Institutional Challenges in Malaysia's Public Housing

Sources	Malaysia's challenges	Theme/dimension
Samikon et al. (2013); Latiff et al. (2020)	Overlap of federal, state, and local mandates, lack of governance practices	Governance fragmentation
Kunasekaran (2025); Mohamad et al. (2019); Bilal et al. (2019)	Weak arrears enforcement; delays in eviction, poor management	Policy enforcement
Brackertz et al. (2018);	Poor inter-agency collaboration, duplication	Coordination of agencies

Financial Sustainability in Public Housing

Financial sustainability refers to the ability of housing institutions to generate sufficient and predictable revenues to cover operational costs, maintenance needs, and long-term asset renewal. Malaysia's public housing system plays a crucial role in providing affordable living solutions to low-income households. However, it faces multiple financial sustainability challenges that hinder its effectiveness and long-term viability. This synthesis outlines the critical financial sustainability challenges faced by Malaysia's public housing sector, drawing insights from various scholarly references.

Rent arrears present a significant challenge to the financial sustainability of public housing systems globally including Malaysia. Many low-income families struggle to keep up with rental payments, which presents a significant risk for housing management entities that rely on these funds for ongoing operational costs and maintenance (Bilal et al., 2019). The Kuala Lumpur City Hall (DBKL) previously reported RM 70 million debts of tenants of the Program Perumahan Rakyat (PPR) and Perumahan Awam (PA). Moreover, Kuala Lumpur City Hall (DBKL) previously reported that 52.5% of the 40,000 tenants of the Program Perumahan Rakyat (PPR) and Perumahan Awam (PA) have rent arrears (Kunasekaran, 2025). The accumulation of unpaid rent affects the financial viability of housing authorities and has broader implications for community stability and social welfare. This financial strain can lead to a cycle of neglect where properties fail to receive necessary maintenance and upgrades, further deteriorating housing conditions and thereby aggravating tenant dissatisfaction (Azmy, 2023). Bilal et al. (2019) indicates that stable revenue from timely rent collection is critical for maintaining property standards. According to Kunasekaran (2025), weak monitoring systems and delayed enforcement create structural leakages in cash flow.

Furthermore, maintenance funding in Malaysia is largely reactive and budget-driven. The Joint Management Body (JMB) that manages maintenance funds always prioritizes urgent repair works due to limited funding, often postponing preventive measures until damage occurs. Ebekozien et al. (2022) underscores that the absence of a dedicated maintenance planning framework has led to an overall decline in public housing standards. Studies show that this approach accelerates deterioration and results in escalating costs of deferred maintenance (Bilal, Meera, & Razak, 2019; Blessing, Jimoh, & Achuenu, 2015). Thus, it is essential to keep a building in as build condition by preventive strategies that widely adopted in Germany and the Netherlands, rely on lifecycle costing approaches that ensure long-term financial planning and cost efficiency (Mondi & Massawe, 2024).

Finally, the lack of a reserve fund or mandatory sinking mechanism leaves housing authorities vulnerable to funding shortfalls. When arrears increase or vandalism increases, maintenance budgets collapse, thereby affecting housing quality (Samikon et al., 2013). The lack of this precautionary financial mechanism leaves housing authorities scrambling to address urgent repair needs, often at the expense of other needed funds (Azmy et al., 2023). The existing legal and policy framework does not mandate the establishment of such a fund, leading to continued neglect of long-term maintenance planning (Azmy et al., 2023). In contrast,

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Singapore mandates a reserve contribution for each housing estate, ensuring a financial buffer for ongoing and future maintenance (UN-Habitat, 2020).

Public housing authorities face the dual challenge of addressing immediate cash flow issues while also planning for long-term sustainability. The need for improved financial planning emerges as a common theme across public sectors, indicating that inadequate financial planning leads to deterioration in service delivery and infrastructure (Croke et al., 2019). In light of these factors, it is imperative for the Malaysian government, alongside housing authorities, to adopt comprehensive measures that include safeguarding rent collection, implementing structured maintenance funding, and establishing mandatory sinking funds to ensure the longevity and viability of public housing initiatives.

International Perspectives

Comparative international experiences provide valuable insights into how effective institutional structures and financial strategies can reinforce each other to ensure the sustainability of public housing. Each nations demonstrate different yet complementary approaches to public housing governance which can be adapted to enchance Malaysia’s public housing systems. Furthermore, both countries exhibit a notable strength in their planning frameworks that facilitate the integration of environmental sustainability within housing projects. In Singapore, urban planning strategies are closely aligned with sustainability initiatives. The integration of green spaces and the promotion of energy-efficient housing in the HDB projects reflect a national commitment to sustainable urban living (Zhang & He, 2022). Similarly, Germany’s robust policies on energy efficiency in public housing aim to minimize ecological footprints, transforming public housing into a model of sustainability while reducing long-term operational costs.

Both examples underscore the critical importance of creating reserve funds or mandatory sinking funds as a prerequisite for financial sustainability. Singapore employs a well-structured Finance and Development Committee that allocates resources effectively, which helps keep public housing within financial reach of the intended demographic while ensuring that properties remain well-maintained over time. Germany's model similarly advocates for strategic reserves for maintenance, emphasizing the need for foresight in budgeting and planning to address future upgrading needs (Arumsari & Sulistio, 2021). This synergy not only supports the sustainability of public housing but also leads to improved living standards and enhanced economic mobility for residents. By adapting these international practices, Malaysia can build a more resilient public housing sector that effectively meets the needs of its citizens while promoting financial sustainability.

Singapore

Singapore’s public housing is widely recognized for its Housing and Development Board (HDB), which integrates institutional control and financial mechanisms into a cohesive governance framework. Rent collection is strictly enforced, with staggered rental schemes designed to match household income levels, thereby ensuring both affordability and compliance. In addition, a compulsory sinking fund ensures that every housing estate maintains a financial buffer for preventive and long-term maintenance (Phang & Helble, 2016). This model demonstrates the effectiveness of centralized governance combined with robust fiscal tools.

A pivotal aspect of this model is the Central Provident Fund (CPF), which serves as a mandatory savings scheme that assists citizens in financing home purchases. Chua (2014) explains that this asset-based social security system allows homeowners not only to secure housing but also to utilize it as a valuable investment for retirement, thus embedding economic self-sufficiency into the fabric of public housing. This financial strategy ensures a steady flow of capital into the housing sector, enabling ongoing maintenance and development. The approach also encourages social cohesion and mobilizes resources, allowing households to transition from public to private housing more seamlessly, thereby reducing reliance on state-supported housing over time.

Germany

Germany offers a different approach through cooperative and municipal-based housing associations. These associations pool financial resources from members and operate within strong legal and regulatory frameworks that emphasize transparency and accountability. By embedding housing provision within cooperative structures, the German model ensures that decision-making is both participatory and financially prudent, strengthening institutional trust while reducing reliance on state subsidies.

An important feature of the German model is its emphasis on long-term rental contracts combined with regulatory controls over rent prices, creating a more stable and predictable environment for tenants (Arumsari & Sulistio, 2021). Stability in tenancy translates into more predictable revenue streams, which in turn reinforces financial sustainability. In addition, a key strength of the German model is its adoption of lifecycle costing in maintenance, ensuring funds are allocated for preventive work and long-term renewal. This proactive approach ensures that financial resources are used efficiently while maintaining the liveability of housing stock (García-Lacalle & Torres, 2021).

Conceptual Linkage

The literature suggests that institutional and financial dimensions of public housing sustainability are deeply interconnected, yet they are often treated as separate areas of analysis. Institutional sustainability focuses on governance, coordination, and policy enforcement, while financial sustainability emphasizes rent collection efficiency, maintenance funding, and long-term fiscal planning. When examined in isolation, each perspective provides only a partial understanding of the systemic challenges facing public housing. Studies show that weak institutional structures, such as fragmented governance and inconsistent enforcement, directly undermine financial performance by allowing arrears to accumulate and by preventing coordinated funding strategies (Kunasekaran, 2025; Brackertz et al., 2018). Similarly, financial fragility in the form of underfunded maintenance and absent reserve funds limits agencies' capacity to strengthen governance practices, creating a vicious cycle of deterioration and inefficiency (Bilal, Meera, & Razak, 2019).

As illustrated in Figure 1.1, the overlap between institutional frameworks and financial sustainability represents the core of this study. International models reinforce this perspective: Singapore integrates centralized governance with mandatory sinking funds while Germany combines cooperative structures with lifecycle costing. These cases show that aligning governance and financial mechanisms is essential for liveability, affordability, and investment viability. Thus, bridging institutional governance and financial sustainability is both a pressing research gap and a necessary policy agenda.

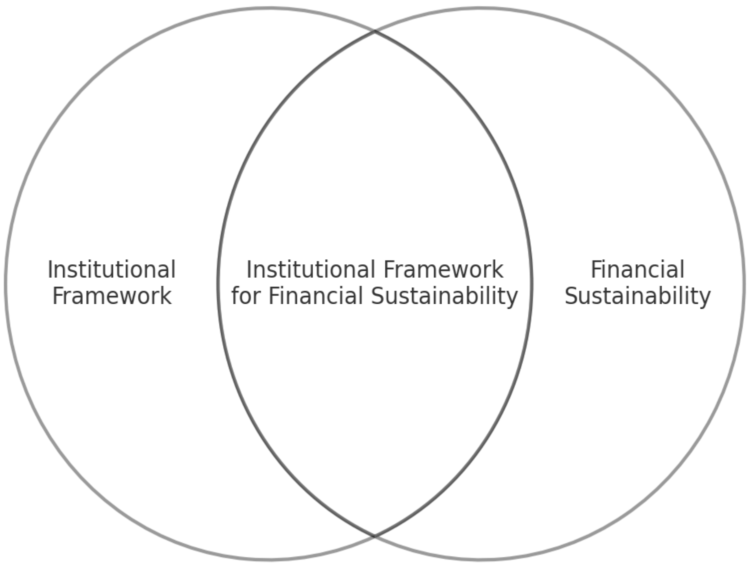

Figure 1 Intersection of Institutional Framework and Financial Sustainability

METHODOLOGY

This study employed a Systematic Literature Review (SLR) to synthesize existing research on institutional and financial sustainability in public housing. The review followed the PRISMA framework to ensure transparency in article selection. Searches were conducted across Google Scholar, Scopus, Web of Science, and ScienceDirect, supplemented by government reports and international case studies. The keywords combined terms such as *"public housing," "financial sustainability,"* and *"institutional framework."* The scope was limited to English-language publications between 2010 and 2024. Studies were included if they focused on public housing governance, affordable housing institutions, rent collection, maintenance financing, institutional coordination or financial sustainability. Studies were excluded if they focused solely on private housing markets, general housing affordability, constrution technology, or urban planning without direct relevance to institutional and financial sustainability.

The screening process involved duplicate removal, title and abstract screening, and full-text review based on relevance to the research objectives. Selected sources were assessed according to their relevance, credibility, methodological clarity and contribution to the institutional or financial sustainability debate. Data extraction focused on three analytical themes: (i) enforcement of rent collection, (ii) maintenance funding and expenditure, and (iii) use of financial performance metrics. Thematic synthesis was conducted by coding recurring issues from the selected literature and grouping them into these themes to identify key gaps, cross-country lessons, and policy implications. As this study is literature-based, no primary empirical data were collected from residents, housing managers, or policymakers. Therefore, the findings should be interpreted as a conceptual and policy-oriented systhesis requiring future empirical validation.

MAIN FINDINGS

This systematic literature review identified three recurring challenges that constrain the sustainability of public housing in Malaysia are weak enforcement of rent collection, disproportionate expenditure on reactive maintenance, and limited use of financial performance metrics. In addition, comparative analysis highlights how international best practices address these challenges through integrated institutional and financial mechanisms.

Weak Enforcement of Rent Collection Progress

Although rent collection policies exist, enforcement is often inconsistent across states and agencies. Many schemes tolerate prolonged arrears due to political sensitivity, weak monitoring, and administrative inefficiencies. Kunasekaran (2025) emphasizes that the absence of a centralized household registry hampers efforts to track tenant eligibility and enforce payment obligations. Legal frameworks also tend to favor tenants, which delays eviction proceedings and reduces deterrence (Garboden & Rosen, 2019). These factors create a culture of tolerance towards arrears, undermining the financial stability of housing authorities. Moreover, this delay can give tenants a misleading impression of safety, encouraging them to postpone rent payments and worsening the problem of unpaid rent. Moreover, any lapse in enforcement can lead them to neglect rent obligations (Hardie, 2022).

Furthermore, studies indicate that the introduction of automation in rent collection processes, like the direct payment of housing benefits, has been challenging. Many tenants have reported difficulties with this system, citing delays in payments which inevitably lead to shortfalls in rent payments (Hickman et al., 2017). When public housing authorities do not effectively manage and streamline these processes, it reinforces the problem of arrears.

Disproportionate Expenditure on Ongoing Maintenance

High reactive maintenance costs divert resources from preventive measures, accelerating asset deterioration. The reactive instead of preventive maintenance strategy and inappropriate management practices are causing for wastage of funds (Hashim et al., 2015). Numerous studies indicate that maintenance is often budget-driven rather than need-driven, which results in delays and unaddressed maintenance issues. Mohamad, Ridzuan, and

Abd Rahman (2018) have emphasized that maintenance management often reacts to problems instead of preventing. This prioritization of immediate needs over proactive maintenance results in deteriorating buildings and increasing costs associated with deferred maintenance (Blessing et al., 2015; Adeoye et al., 2024). According to Bilal, Meera, Razak (2019), Malaysia's public housing ineffective and improper maintenance management is the reason why repairs and remediation efforts are lacking. This is because ineffective work results in damage that is not adequately repaired and occurs repeatedly which leads to high maintenance cost.

In addition, lack of regular maintenance results from chronic underfunding and disproportionate allocation of resources toward ongoing maintenance, leading to unaddressed essential repairs and prevention measures (Mondi and Massawe, 2024). Inadequate funding allocations often force the postponement of maintenance until adequate resources become available. Mostly, inadequate maintenance funding is due to rent arrears or vandalism which can cause the over budget expenses in the long term (Samikon et al., 2013; Bilal, Meera, Razak, 2019).

Limited Use of Financial Performance Metrics

The limited application of financial performance metrics in the public housing sector directly undermines institutional structure and the coordination capacity of oversight agencies. Financial indicators such as rent collection efficiency, maintenance cost ratios, and reserve fund adequacy serve as objective benchmarks for evaluating the fiscal health and operational performance of housing programs (World Bank, 2014; UN-Habitat, 2020).

The limited use of financial performance matrics also impacts risk management in oversight agencies. Stroehle et al (2019) note that organizations must align their measurement standards to align with strategic goals and risk frameworks. Agencies lack a common evidence base for decision-making, resulting in fragmented governance and reduced accountability (Brackertz et al., 2018). Without robust assessment matrics that capture the financial health and agility of the organization, these agencies may struggle to identify weaknesses in the system, thereby weakening their oversight capabilities.

The absence of integrated governance frameworks within institutions further exacerbates this problem. García-Lacalle and Torres (2021) demonstrate that high-quality financial reporting and accountability practices are crucial for maintaining transparency and institutional credibility. The failure to implement comprehensive performance measurement systems suggests that merely applying financial matrics without including qualitative assessments, can weaken oversight agencies' governance effectiveness, reducing their ability to address the multifaceted challenges that organizations encounter (Benvenuto et al., 2021).

This deficiency not only weakens the internal governance capacity of individual agencies but also hampers the formation of integrated housing policies, ultimately compromising long-term sustainability objectives (Phang & Helble, 2016).

Integrated Lessons from International Models

Comparative insights from Singapore and Germany illustrate that institutional reforms and financial mechanisms must be pursued together. Singapore's HDB enforces arrears strictly while using staggered rental schemes and mandatory sinking funds to ensure steady revenue and continuous maintenance (Phang & Helble, 2016). Germany's cooperative housing associations employ lifecycle costing and pooled financial resources within transparent regulatory frameworks, ensuring preventive maintenance is adequately funded (García-Lacalle & Torres, 2021).

Table 2 Cross-Country Lessons in Institutional and Financial Sustainability

Country	Institutional Mechanism	Financial Mechanism	Key Lesson for Malaysia
Singapore	Centralized governance under HDB	Staggered rents; mandatory sinking	Strong enforcement + reserves secure fiscal stability

		funds	
Germany	Cooperative housing associations; legal oversight	Lifecycle costing; pooled maintenance funds	Preventive planning reduces long-term costs

Singapore and Germany were selected as comparative references not because their housing systems are directly transferable to Malaysia, but because they offer contrasting governance and financial mechanisms that provide useful policy lessons. Singapore represents a centralized and state-led public housing model, while Germany illustrates a cooperative and regulated association-based model. However, their applicability to Malaysia must be interpreted cautiously due to differences in land admissions, fiscal capacity, welfare systems, legal frameworks and institutional maturity. Therefore, this study adopts these cases as reference models for policy learning rather than as directly replicable solutions.

DISCUSSION

The findings of this review demonstrate that the sustainability of Malaysian public housing is constrained by both institutional weaknesses and financial fragility. Weak enforcement of rent collection policies undermines revenue stability, while disproportionate expenditure on reactive maintenance accelerates asset deterioration. Furthermore, the limited use of financial performance metrics reduces transparency and weakens evidence-based governance, preventing agencies from identifying structural inefficiencies. Collectively, these gaps erode both the liveability of public housing environments and the fiscal resilience of managing institutions.

These challenges are not unique to Malaysia. International experiences highlight that sustainable public housing depends on the mutual reinforcement of institutional and financial strategies. Singapore's centralized Housing and Development Board model demonstrates how strict enforcement, staggered rental schemes, and mandatory sinking funds provide stable revenue streams and guarantee long-term maintenance capacity. Germany's cooperative associations illustrate the effectiveness of participatory governance combined with lifecycle costing, ensuring preventive maintenance is systematically funded. Meanwhile, the Netherlands shows how regulated autonomy of housing associations backed by strong accountability mechanisms balances affordability with fiscal viability.

In the Malaysian context, policy transfer from Singapore or German requires careful adaptation. Malaysia's public housing governance operates within a multi-level institutional structure involving federal agencies, state governance and local authorities, whereas Singapore benefits from a more centralized housing authority. Similarly, Germany's cooperative housing model is supported by mature legal and financial institutions that may not be directly comparable to Malaysia's public rental housing sector. Hence, the key lesson for Malaysia is not to duplicate these models, but to adapt selected principles, particularly stronger accountability, dedicated maintenance reserves, lifecycle-based financial planning, and integrated performance monitoring.

From these examples, it is clear that fragmented institutional arrangements and weak financial planning cannot be addressed in isolation. Instead, a hybrid governance–finance approach is required, one that aligns policy enforcement with robust financial instruments. For Malaysia, this means moving beyond reactive maintenance and ad-hoc rent collection, toward integrated systems that emphasize accountability, predictability, and long-term planning.

RECOMMENDATION

Based on the synthesis of literature and international benchmarking, this paper proposes a preliminary institutional–financial framework to strengthen the long-term sustainability of public housing in Malaysia. Since this study is based on secondary literature, the following recommendations should be interpreted as policy directions for further empirical validation rather than definitive implementation measures.

Introduce a Staggered Rental Scheme

Introduce tiered payment systems aligned with household income to improve affordability while ensuring steady revenue streams. However, its implementation would require accurate household income data, regular eligibility review, and clear enforcement procedures to avoid misuse or prolonged arrears.

Establish Mandatory Reserve Funds

Establish sinking funds for each housing estate to guarantee continuity of maintenance and reducing reliance on annual budget allocations. Such a mechanism would allow housing authorities to plan preventive maintenance more systematically rather than relying mainly on reactive repairs. Future empirical assessment is needed to determine the appropriate contribution rate, fund governance structure, and accountability mechanism.

Create an Integrated Governance Council

An integrated governance council should be considered to improve coordination among federal agencies, state governments, local authorities, and housing management bodies. This cross-agency body could support policy alignment, arrears monitoring, maintenance planning, and performance reporting. Its effectiveness would depend on clear institutional mandates, data-sharing mechanisms, and accountability arrangements between agencies.

Adopt Standardised Financial Performance-Based Reporting

Public housing authorities should adopt standardized financial performance indicators, including rent collection efficiency, arrears ageing, maintenance cost ratios, reserve fund adequacy, and expenditure-to-revenue ratios. These indicators would strengthen transparency, enable evidence-based monitoring, and support early identification of financial risks. However, the practical adoption of these KPIs requires consistent data collection, reporting capacity, and institutional commitment. Adopt standardized KPIs, including rent collection efficiency, maintenance cost ratios, and reserve adequacy, to improve transparency and accountability.

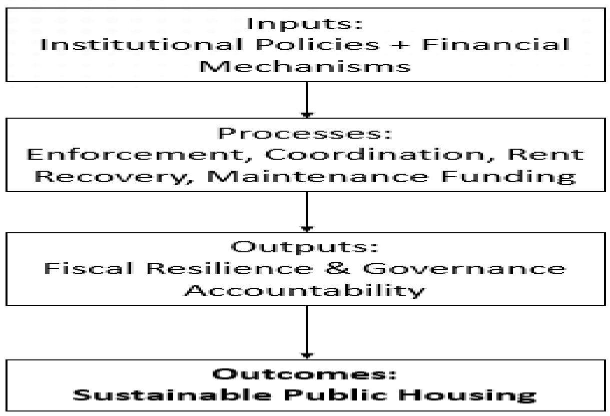

Figure 2 Integrated Institutional–Financial Framework

Limitations And Future Research

This study is limited by its reliance on secodary literature and policy-based evidence. As no primary empirical data were collected, the findings cannot directly capture the lived experiences of residents, housing managers, local authorities, or policy makers involved in public housing delivery. Therefore, the proposed recommendations should be interpreted as a conceptual and policy-oriented synthesis rather than as empirically validated findings. Future research should extend this study through interviews, surveys, or case studies involving Malaysian public housing stakeholders to validate the proposed institutional-financial framework in real-world contexts.

CONCLUSION

This study underscores the need for an integrated institutional–financial approach to sustain Malaysia's public housing sector. Policy recommendations include implementing a staggered rental payment system to improve affordability and collection rates, mandating reserve funds to ensure maintenance continuity, establishing an inter-agency governance council for policy alignment, and adopting financial performance-based reporting to improve transparency. International cases show that institutional strength and financial resilience must work together, as seen in Singapore and Germany. To address these gaps, the paper proposes four measures: staggered rental schemes, mandatory reserve funds, integrated governance councils, and financial performance–based reporting. These strategies can improve revenue stability, ensure better maintenance, and strengthen institutional accountability, ultimately leading to more livable and sustainable public housing.

Future studies should empirically test this proposed framework through stakeholder interviews, case studies of selected PPR or PA schemes, and financial data analysis involving rent arrears, maintenance expenditure, and reserve fund adequacy.

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