

Strategic Partnerships and Green Innovations: A Roadmap for Sustainable Co-Value Investment Mixed-Income Housing in South Africa

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Abstract

In the face of mounting pressures to achieve sustainable human settlements, this study explores the intricacies of constructing inclusive housing in line with the United Nations Sustainable Development Goal 11, focusing on South Africa as a case study. Employing investment theory as a foundation, the research meticulously derives guidelines for developing sustainable Mixed Income Housing (MIH) through a thematic analysis of interviews. The study highlights South Africa's preference for segregating housing by income levels, utilising physical demarcations and security measures to address crime concerns. It underscores the efficacy of public-private partnerships in housing development, emphasising the necessity for government and municipal provision of land and infrastructure to mitigate service costs. This collaborative model is posited as a means to alleviate poverty through construction jobs and the promotion of Small Medium and Micro Enterprises (SMMEs), with vocational training playing a pivotal role in job creation. The analysis points to the critical need for investors to fully leverage government subsidies towards creating affordable housing units, cautioning against the imbalance of investment returns that disenfranchises governmental social objectives. The paper advocates for the development of Greenfield sites using green technologies and enhanced infrastructure to forge sustainable, inclusive urban spaces that bridge income and racial divides, presenting a model for sustainable urban development that marries economic viability with social equity.

Keywords: Green Technologies, Inclusive Urban Development, Public-Private Partnerships, Sustainable Housing, Urban Policy.

Word Count: Original Manuscript (10,775), this submission does not relate to a conference or a special issue but relates to a graduated PhD from the University of Witwatersrand. (Word count excludes title, author names and affiliations, keywords, abbreviations, table/figure captions, acknowledgments, and references).

Highlights

- Equitable Urban Investment Theory (EUIT) balances economic viability, social equity, and sustainability in MIH.
- PPPs are key under EUIT for effective MIH in mixed economies.
- Govt. support in MIH is critical for equitable, sustainable housing in mixed economies.
- Investment theory supports MIH guidelines but lacks a balanced, multidimensional approach.

Abbreviations

Bankers Association South Africa (BASA), Equitable Urban Investment Theory (EUIT), Finance Linked Individual Subsidy Programme (FLISP), Gauteng City Region Observatory (GCRO), Housing Development Agency (HDA), Human Settlements Development Grants (HSDGs), Inclusionary Housing Policy (IHP), Johannesburg Housing Company (JHC), Johannesburg Social Housing Company (JOSHCO), Mixed Income Housing (MIH), Nedbank Green Trust (NGT), Non-Governmental Organisations (NGOs), Non-numerical Unstructured Data Indexing Searching (QSR NUD*IST), Not in My Backyard (NIMBY), Public-Private Partnerships (PPPs), Reconstruction and Development Programme (RDP), Restructuring Capital Grant (RCG), Small Medium and Micro Enterprises (SMMEs), Social Housing Authority Board (SHAB), Transport Oriented Developments (TODs), Urban Management Grants (UMG), Urban Settlements Development Grants (USDGs), Upper-Bound Poverty Line (UBPL), World-Wide Fund (WWF).

Introduction

The Challenges and Strategies in Mixed Income Housing

Exploring the Complexities of Mixed Income Housing (MIH)

Historical literature reveals persistent ambiguities surrounding MIH regarding its scale, intent, income mix, tenure type, and design (Brophy and Smith, 1997; Ellickson, 2009; Green Building Council of South Africa and British High Commission, 2012; Jupp et al., 1999; Levy et al., 2016, 2013), whilst modern research continues to explore the complexities of MIH, including its scale, purpose, demographic diversity, tenure options, and architectural planning (Bulger et al., 2023; Geyer Jr, 2024; Kjeldsen and Joseph, 2024; Zhang et al., 2024). The approval processes for such developments are frequently challenged and hindered in legal disputes, primarily due to the phenomenon known as the Not in My Backyard (NIMBY) syndrome (Read and Sanderford, 2017; Simbanegavi, 2019; Turok et al., 2024). This syndrome reflects community resistance to MIH developments, driven by concerns over potential declines in property values, increases in crime, and excessive burdens on services and amenities (Diamond and McQuade, 2019; Ellickson, 2009; Galster, 2011; Smith and Sandoval, 2019). Additional complications include diminished educational achievements, heightened criminal activity, teenage pregnancies, and isolation from lucrative employment opportunities, particularly within inner-city concentrated housing (Ah Goo, 2017; Amjad et al., 2019; Andersson et al., 2022; Bulger et al., 2023; Lipman, 2020; Simbanegavi, 2019).

Private Sector Engagement in South Africa's Housing Market

In 2004, the Bankers Association South Africa (BASA) committed to a R42 billion investment in affordable housing by 2008, marking a significant private sector engagement in

addressing housing shortages (Gordhan, 2014). Goko, (2013) and Migozzi, (2020) highlighted an existing market gap of 600,000 units, with an annual increase of approximately 100,000 units. The government has demonstrated a willingness to collaborate with the private sector to stimulate MIH investments, as evidenced by the Human Settlements Minister's appeal to Johannesburg Stock Exchange (JSE) listed companies to invest in housing (Fell and Mattsson, 2021; Iwegbuna, 2019; Simbanegavi and Ijasa, 2017). Despite substantial contributions from both public and private sectors, discussions continue to revolve around housing shortages, policy considerations, and the necessary enhancements to position residential markets as a sustainable investment class (Fama and Schwert, 1977; Gruis and Nieboer, 2004; Haffner and Hulse, 2021; Li et al., 2019). Although MIH's are prevalent in various countries, their development in South Africa remains nascent, largely due to the nation's historical context. It remains uncertain how MIH in South Africa could be adapted to mitigate the NIMBY effect, thereby rendering such housing solutions both viable and sustainable, and in turn, catalysing private sector investment.

The Problem Statement

Challenges in Achieving Sustainable Mixed Income Housing

The phenomenon of MIH developments occupies a pivotal role in contemporary urban planning and socio-economic policy, addressing the pressing need for inclusive, sustainable, and equitable housing solutions in rapidly urbanising societies. Despite the potential of MIH to bridge the chasm between disparate income groups, foster social cohesion, and stimulate economic diversity within urban centres, several critical challenges undermine its effectiveness and sustainability. The persistent housing shortfall, exacerbated by global financial crises, environmental calamities, political instability, and escalating urbanisation rates, presents a formidable challenge to achieving inclusive urban environments as mandated by the United Nations Sustainable Development Goal 11 (Rahman, 2019; United Nations, 2015).

The Aim of the Study

Exploring Mixed Income Housing Dynamics in South Africa

This study seeks to explore the intricacies of MIH development within the South African context, a nation uniquely marked by its apartheid legacy and current socio-economic disparities. Central to this inquiry is the examination of the Inclusionary Housing Policy (IHP) as a mechanism for catalysing MIH developments, juxtaposed against the backdrop of NIMBYism, which delays development processes and diminishes investment in such housing initiatives. The study delves into the dynamics of public-private partnerships (PPPs), the optimal mix of households within MIH developments, and the critical role of asset and property management strategies in ensuring the viability and sustainability of MIH projects. The overarching problem this research addresses is the multifaceted challenge of effectively implementing MIH developments that can withstand socio-economic pressures, mitigate risks, and fulfil the vision of creating inclusive, safe, resilient, and sustainable urban spaces for all citizens (Pruzan, 2016).

The Main Research Question

Optimising MIH Development in South Africa: A Strategic Inquiry

MRQ: How can the implementation of MIH developments in South Africa be optimised through strategic public-private partnerships, effective IHPs, and comprehensive asset and property management strategies to ensure viability, sustainability, and inclusivity, while overcoming challenges such as NIMBYism, financial constraints, and the socio-economic disparities exacerbated by urbanisation and historical legacies?

The Research Sub-Questions

Sub-Questions Guiding MIH Development Optimisation

In the quest to address South Africa's acute housing shortage and its attendant socio-economic disparities, MIH developments emerge as a pivotal solution within urban planning discourse. The integration of diverse income groups within urban spaces not only addresses housing needs but also aims to foster social cohesion and economic diversity. However, realising the full potential of MIH developments entails navigating a complex landscape marked by financial constraints, societal resistance such as NIMBYism, and the lingering effects of historical injustices. This research dissects these challenges through a focused inquiry, subdivided into three critical sub-questions, aimed at uncovering the mechanisms through which MIH developments can be optimised to achieve their intended inclusivity, viability, and sustainability.

RS1: What roles do PPPs play in enhancing the viability and sustainability of MIH developments, and how can these collaborations be structured to address financial constraints and incentivise the inclusion of low-income housing units?

RS2: How can IHP be effectively implemented and monitored within the South African context to ensure they contribute to the socio-economic integration of MIH developments without necessitating legislative enforcement?

RS3: What are the optimal asset and property management strategies required to maintain the quality and investment value of MIH developments, and how can these approaches mitigate the impacts of NIMBYism and historical socio-economic disparities?

The successful implementation of MIH developments in South Africa represents a multifaceted endeavour that necessitates a coordinated approach involving strategic public-private partnerships, effective policy implementation, and robust management practices. The exploration of these dimensions through the posed sub-questions illuminates pathways towards overcoming prevalent challenges in MIH development. By fostering collaborations that align the interests of the private sector with public goals, ensuring the robust application and monitoring of inclusive housing policies, and adopting comprehensive management strategies, MIH developments can transcend their current limitations. This approach not only promises to bridge the housing gap but also to contribute significantly to the urban landscape's socio-economic and spatial transformation, paving the way for more inclusive, resilient, and sustainable cities in South Africa and beyond.

The Research Objectives

Objectives Guiding the Study on MIH Development Optimisation

The pursuit of MIH developments in South Africa is a strategic response to the urgent need for inclusive, sustainable, and equitable urban housing solutions. Amidst challenges such as financial constraints, societal resistance, and historical inequalities, this research aims to

delve into the complexities of MIH implementation. By establishing clear research objectives, this study seeks to identify and address the critical factors influencing the success of MIH projects. These objectives are designed to guide a comprehensive investigation into the mechanisms and strategies that can optimise MIH developments, ensuring their contribution to the broader goals of urban inclusivity, resilience, and sustainability.

RO1: To evaluate the role and impact of PPPs in enhancing the viability and sustainability of MIH developments in South Africa, focusing on the structures and mechanisms that facilitate effective collaboration between the private sector, government, and communities.

RO2: To assess the implementation and efficacy of IHP within the South African context, examining how these policies can be leveraged to foster socio-economic integration in MIH developments without necessitating their conversion into law.

RO3: To identify and propose optimal asset and property management strategies that ensure the maintenance of quality and investment value in MIH developments, while addressing challenges such as NIMBYism and the socio-economic disparities rooted in South Africa's urbanisation and historical context.

This study sets forth a focused inquiry into the optimisation of MIH developments in South Africa through a series of targeted research objectives. By examining the synergistic potential of PPPs, the strategic implementation of inclusionary housing policies, and the adoption of effective asset and property management strategies, this research aims to uncover actionable insights that can significantly improve the outcomes of MIH projects. Achieving these objectives will not only contribute to the reduction of housing shortages and the enhancement of urban inclusivity but also foster a model of urban development that is equitable, resilient, and sustainable. The anticipated findings promise to offer valuable contributions to both policy formulation and the practical execution of MIH developments, paving the way for transformative urban housing solutions in South Africa and similar contexts globally.

The Research Assumptions

Foundational Assumptions for MIH Development

In embarking on a study aimed at optimising MIH developments in South Africa, it becomes imperative to delineate the underlying assumptions guiding the research. These assumptions are foundational to understanding the complexities and potential of MIH as a tool for addressing urban housing shortages, socio-economic disparities, and the pursuit of sustainable urban development. By articulating these research assumptions, we establish a framework for inquiry that acknowledges the inherent challenges and opportunities within the South African context, providing a basis for a nuanced examination of MIH developments.

RA1: PPPs as Catalysts for MIH Development: It is assumed that PPPs possess the potential to significantly enhance the viability and sustainability of MIH developments. This presupposes that through effective collaboration and shared investment, PPPs can overcome financial and regulatory hurdles, contributing to the successful implementation of MIH projects.

RA2: Effectiveness of IHP: The research operates under the assumption that IHPs, when properly implemented and monitored, can serve as powerful mechanisms for promoting socio-economic integration within MIH developments. This assumes that such policies can be applied flexibly and creatively to encourage the inclusion of low-income housing units without necessitating legislative enforcement.

RA3: Impact of Asset and Property Management Strategies: The assumption here is that strategic asset and property management practices are critical for maintaining the quality, investment value, and sustainability of MIH developments. This includes the belief that addressing challenges such as NIMBYism and historical socio-economic disparities is essential for the long-term success of MIH projects.

The outlined research assumptions serve as the bedrock upon which this study is built, framing our exploration of MIH developments in South Africa. By acknowledging the critical roles of public-private partnerships, inclusionary housing policies, and asset and property management strategies, these assumptions highlight the multifaceted approach required to address urban housing challenges. As we delve into the investigation, these assumptions will guide our analysis, enabling us to critically assess the potential of MIH to contribute to more inclusive, resilient, and sustainable urban communities. Ultimately, the verification or refutation of these assumptions through empirical research will provide valuable insights into the dynamics of MIH development, informing policy and practice in the pursuit of equitable urban housing solutions (Popper, 2008; Saunders et al., 2023).

The Research Hypotheses

Hypotheses Guiding MIH Development Optimisation

Embarking on a comprehensive study aimed at unravelling the complexities of MIH developments in South Africa necessitates the formulation of specific research hypotheses. These hypotheses are predicated on a critical examination of the factors influencing the success of MIH projects, including public-private partnerships, inclusionary housing policies, and effective management strategies. By positing these hypotheses, the study seeks to empirically test the assumptions and explore the dynamics at play in MIH developments, aiming to contribute to the body of knowledge on creating inclusive, sustainable urban housing solutions.

PPPs Enhance MIH Viability and Sustainability

H1: It is hypothesised that MIH developments facilitated through public-private partnerships exhibit greater viability and sustainability compared to those developed without such collaborative frameworks. This hypothesis suggests that the synergy between governmental support and private sector efficiency and investment can address financial and regulatory challenges, leading to more successful MIH outcomes.

Effective Implementation of IHP Promotes Socio-Economic Integration in MIH Developments

H2: This hypothesis posits that the strategic implementation and monitoring of inclusionary housing policies are significantly associated with enhanced socio-economic integration within MIH developments. It implies that well-crafted IHPs can incentivise the inclusion of low-income housing units, contributing to the broader goals of social cohesion and equity without necessitating legislative enforcement.

Strategic Asset and Property Management Strategies are Crucial for Maintaining MIH Quality and Investment Value

H3: The hypothesis asserts that the adoption of comprehensive asset and property management strategies is critical for ensuring the quality, investment value, and long-term sustainability of MIH developments. This encompasses the premise that effectively addressing challenges such as NIMBYism and historical socio-economic disparities is essential for the success of MIH projects.

Through the articulation of these research hypotheses, the study aims to systematically explore the operational dynamics, challenges, and opportunities of MIH developments in South Africa. By testing these hypotheses, the research endeavours to uncover empirical evidence that can either validate or challenge existing assumptions about the efficacy of PPPs, the role of IHPs, and the importance of management strategies in MIH developments. The findings are anticipated to offer actionable insights and recommendations for policymakers, developers, and urban planners, contributing to the advancement of MIH as a viable and sustainable approach to addressing urban housing shortages and fostering inclusive communities (Popper, 2008; Saunders et al., 2023).

Literature Review

Theoretical Literature Review: Enhancing MIH through Integrated Theoretical Perspectives

Factors Influencing MIH Development Success

The efficacy of MIH developments hinges on their economic viability and sustainability, principles derived from investment theory. Globally recognised factors contributing to MIH success encompass: the prioritisation of market-rate developments with uniform house designs, the employment rate among residents sufficient to sustain development viability, and robust asset and property management practices (Khadduri and Martin, 1997; McConnell and Wiley, 2011; Minkoff and Lyons, 2019; Obrinsky and Stein, 2007; Pozoukidou and Chatziyiannaki, 2021; Rodríguez-Pose and Storper, 2020; Simbanegavi, 2019). In the South African context the effectiveness of IHP in transforming urban areas is contingent upon redirecting such developments towards low/middle-income neighbourhoods, with a model that, while led by developers, is significantly supported by government subsidies (Evans, 2020; Fell and Mattsson, 2021; Klug et al., 2013; Nzau and Trillo, 2020; Rodríguez-Pose and Storper, 2020). Onatu, (2012) further supports this argument through an exploratory case study of Cosmo City, advocating for enhanced private sector engagement in housing development, given the financial limitations faced by local authorities in housing and service provision. This underscores the necessity for housing policies to facilitate private sector involvement (Botha, 2022; Giti et al., 2020; Ludick et al., 2021).

Investment Risks and Strategies in MIH Developments

The investment risks associated with MIH, such as the legislative mandates for mixed-income housing development and the collaborative efforts to augment the investment appeal of MIH projects, are crucial considerations (Gress et al., 2019; Joseph et al., 2020; Simbanegavi, 2019). Opting for greenfield over brownfield sites enhances the investment attractiveness through superior housing unit design, quality, size, and homogeneity (Kent et al., 2019; Pavolová et al., 2021; Simbanegavi, 2019; Yuan, 2019). Consequently, these residences emerge as attractive investment assets. Additionally, MIH developments are capable of integrating individuals from diverse backgrounds, irrespective of race or socioeconomic status, facilitated by the multiplicity of housing unit types (Mayorga et al.,

2022; McFarlane, 2019; Pavolová et al., 2021; Rey et al., 2022). This approach not only elevates housing density, addressing the demands of social and rental housing markets, but also mitigates investment risk by adopting market-oriented asset and property management strategies, essential for ensuring the long-term viability and sustainability of MIH projects (Joseph et al., 2020; Rachmawatia and Susilawatia, 2022; Sanga, 2022; Simbanegavi, 2019).

Integrating Diverse Theories into MIH Discourse

The discourse surrounding MIH has been predominantly anchored in investment theory, which primarily examines the economic feasibility and returns of housing projects. However, this perspective does not sufficiently account for the complex socio-spatial dynamics that define urban living (Janoschka et al., 2020; Lin and Zhu, 2022; Rainer, 2019; Watt, 2021). Extending the theoretical underpinnings of MIH by integrating insights from social equity and urban planning theories, particularly the principles of social justice in urban development and New Urbanism, thereby offering a comprehensive lens through which to evaluate MIH projects (Fainstein, 2014; Garde, 2020; Hirsch et al., 2021; Jian et al., 2020; Kjeldsen and Stender, 2022; Levin et al., 2022; Meerow et al., 2019; Pineo, 2022; Simbanegavi, 2019).

New Urbanism's Role in Enhancing MIH Frameworks

New Urbanism emphasises creating walkable, mixed-use, and interconnected urban spaces to foster sustainable and vibrant communities (Janoschka et al., 2020; Lin and Zhu, 2022; Rainer, 2019; Watt, 2021). The application of New Urbanism to MIH supports a built environment conducive to social cohesion and environmental sustainability. Integrating these principles into MIH development can address urban planning challenges, including density, diversity, and public space quality, thereby enhancing the physical and social fabric of urban neighbourhoods (Ferillo, 2021; Garde, 2020; Grant, 2023; Wang and Kemeny, 2023). Merging social equity and New Urbanism theories with investment perspectives enriches the MIH framework, creating a multidimensional approach that balances economic viability with social and environmentally sustainable development goals. This comprehensive framework recognises the interconnectedness of financial sustainability, social justice, and urban design in MIH developments (Bulger et al., 2023; Fitzgibbons and Mitchell, 2019; Kaur and Garg, 2019; Meerow et al., 2019; Pineo, 2022; Stanislav and Chin, 2019).

Proposing Equitable Urban Investment Theory (EUIT)

Equitable Urban Investment Theory: A Multidisciplinary MIH Approach

This novel theoretical framework integrates principles from investment theory, social equity, and New Urbanism to provide a holistic approach to MIH development. It depicts the balance between economic viability with the imperative for social justice and sustainable urban planning, reflecting a multidisciplinary perspective on urban development. The framework is underpinned by four core tenets (Popper, 2008; Weaich, 2024; Weaich et al., 2024):

Tenet 1: Economic and Social Value Co-creation

This tenet analyses how mixed-income housing contributes to social sustainability, emphasising the importance of social value in urban investment, it posits that MIH developments should not only aim for financial sustainability but also generate significant social value. Economic returns are balanced with social outcomes, such as community

development, social inclusion, and enhanced quality of life for all residents, irrespective of income levels. Investments in MIH are viewed through a broader lens that includes both financial returns and contributions to social equity, challenging traditional economic models by advocating for a broader approach to value creation in housing, where social and community benefits are considered alongside financial gains, promoting social inclusion and community development, reinforcing the argument for integrating these aspects in MIH investments (Al-Busaidi and Al-Muharrami, 2021; Bulger et al., 2023; Fama and French, 2004; Kjeldsen and Stender, 2022; Sanga, 2022).

Tenet 2: Integrated Urban Design and Planning

Drawing on New Urbanism, this principle emphasises the importance of MIH developments being embedded within thoughtfully designed urban spaces that promote walkability, connectivity, and mixed-use environments to foster sustainable and vibrant communities. It advocates for the design and planning of MIH projects to contribute to the creation of vibrant, sustainable communities where diverse populations can interact, live, and thrive, contributing to enhancing social interactions and community vitality in diverse urban settings whilst promoting environmental sustainability and urban connectivity, aligning with the goals of MIH developments (Bulger et al., 2023; Carmona, 2021; Cysek-Pawlak et al., 2022; Cysek-Pawlak and Pabich, 2021; Grant, 2023; Smith, 2002a).

Tenet 3: Participatory Governance and Inclusivity

This tenet stresses the role of participatory governance in the planning and implementation of MIH projects, challenging the effective strategies for engaging local communities in governance processes related to MIH developments, highlighting the importance of ensuring equitable access to resources and meaningful participation, ensuring that the voices of all stakeholders, especially residents of diverse income levels, are heard and integrated into decision-making processes. It aligns with social justice principles by advocating for equitable access to resources, inclusive policymaking, and ensuring that MIH developments serve the needs and aspirations of the entire community. It examines how participatory governance can improve urban development outcomes by involving diverse community members in the decision-making process, thus fostering more equitable and inclusive urban spaces, discussing the role of participatory governance in realising the 'right to the city,' emphasising the need for inclusive policymaking that reflects the diverse needs and voices of urban populations, particularly in MIH settings (Anastasiu, 2019; Andrew-Amofah et al., 2022; Archibugi, 2019; Bulger et al., 2023; Carmona, 2021; Kjeldsen and Joseph, 2024; Sanga, 2022; Simbanegavi, 2019).

Tenet 4: Sustainability and Resilience

Acknowledging the urgent need for urban developments to be environmentally sustainable and resilient, this principle integrates green building practices and technologies within MIH developments. It encourages the adoption of designs and infrastructures that minimise environmental impact, promote energy efficiency, and contribute to the long-term resilience of urban areas against climate change and other urban stresses (Anastasiu, 2019; Archibugi, 2019; Bulger et al., 2023; Fama and French, 2004; Griggs et al., 2013; Hopkins, 2019; Jeddi Yeganeh et al., 2019; Long and Rice, 2019; Nkhonjera, 2020; Simbanegavi, 2019; Smith, 2002a; Tsenkova, 2021; Weaich et al., 2023; Yeganeh et al., 2019).

A Synthesised Framework for Sustainable Urban Housing

By synthesising insights from investment theory, social equity, and New Urbanism, this new theoretical framework for MIH development through the theocratic lens of Equitable Urban Investment Theory (EUIT) offers a comprehensive approach that values economic feasibility, social justice, participatory urban planning, and environmental sustainability. It guides the development of MIH projects that are not only financially viable but also contribute to the creation of inclusive, resilient, and sustainable urban communities. This novel framework encourages a shift in perspective among developers, policymakers, and urban planners towards embracing a more integrated and multidisciplinary approach to urban housing developments (Weaich et al., 2024).

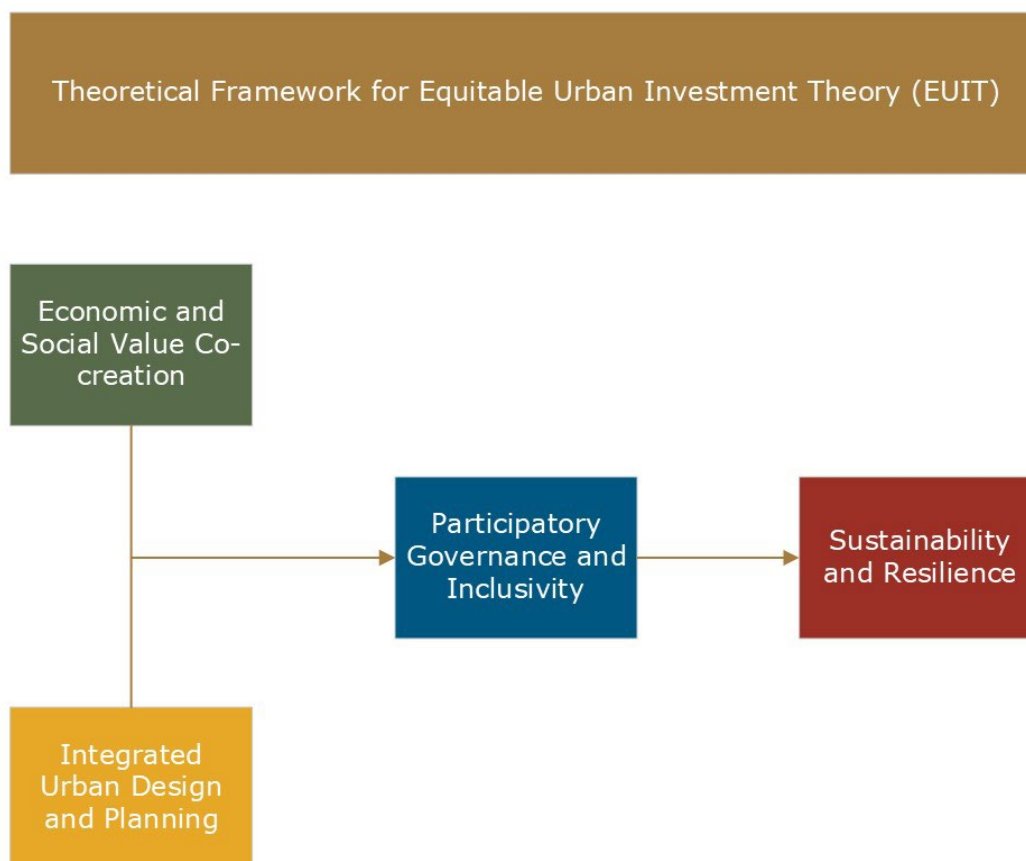
Defining Equitable Urban Investment Theory (EUIT)

EUIT Framework for Sustainable MIH Development

The Equitable Urban Investment Theory (EUIT) is a comprehensive theoretical framework crafted from epistemological (theory of knowledge) insights spanning two decades to guide MIH developments toward economic, social, environmental, and governance excellence. It stands on four core tenets that interact to ensure MIH projects are not only financially sound but also socially just and environmentally sustainable, ultimately leading to resilient urban communities, defining an 'end goal' to MIH developments (Aristotle and Ross, 2009). The first tenet, "Economic and Social Value Co-creation," asserts that MIH should yield financial returns while generating substantial social benefits, enhancing community welfare and social integration. The second tenet, "Integrated Urban Design and Planning," draws from New Urbanism, emphasising the need for MIH developments to foster walkability and connectivity, contributing to vibrant and sustainable communities. "Participatory Governance and Inclusivity," the third tenet, prioritises the involvement of all stakeholders, particularly residents, in decision-making processes, promoting equitable access and ensuring MIH developments align with community needs. The final tenet, "Sustainability and Resilience," highlights the importance of embedding green building practices within MIH projects to minimise environmental impact and foster adaptability to urban stresses.

Visualising Equitable Urban Investment Theory (EUIT)

Figure 1: Theoretical Framework for Equitable Urban Investment Theory (EUIT)



Empirical Literature Review: MIH Development, Economic Viability and Social Equity

MIH as a Strategy for Inclusive Urban Development

The concept of MIH has garnered increasing attention as a strategy to address urban inequality and promote inclusive urban development (Blimpo et al., 2020; Owens et al., 2018). Rooted in the principles of the Equitable Urban Investment Theory (EUIT), MIH is poised to balance economic viability with social equity, drawing from a rich tapestry of investment theory, social equity, and urban planning principles (Blimpo et al., 2020; Lehmann-Hasemeyer et al., 2023; Naseemullah, 2023; Owens et al., 2018). This literature review explores the foundational concepts underpinning MIH, assesses key success factors, and identifies challenges within the South African context, offering a comprehensive analysis through the lens of EUIT. Investment theory, traditionally focusing on the economic dimensions of housing projects, underscores the importance of financial sustainability (Fama and French, 2004). However, solely economic evaluations often overlook the social dimensions integral to urban living (Cattaneo et al., 2022; Smith, 2002b). Fainstein, (2014) introduces the concept of "The Just City," advocating for urban development that prioritises fairness, diversity, and equity. This social justice perspective is complemented by social urbanism, which emphasises design and planning principles that foster sustainable and vibrant communities (Bradlow, 2024).

Characteristics of Successful Global MIH Developments

Globally, successful MIH developments share common characteristics: market-rate developments with uniform designs, high employment rates among residents, and effective asset management (Khadduri and Martin, 1997; McConnell and Wiley, 2011; Nauges and

Whittington, 2017; Zizzamia, 2020). In South Africa, the potential of IHP in reshaping cities is contingent upon aligning developments with the needs of low/middle-income neighbourhoods, supported by government subsidies (Klug et al., 2013). Onatu, (2012) highlights the necessity of private sector engagement, given local authorities' financial constraints, correlating with historic texts (Brown and Ashman, 1996). Yet, the investment risks associated with legislative mandates and collaborative models underscore the need for a nuanced approach that considers location, design, and management strategies to enhance MIH's viability and sustainability.

Limitations of Investment Theory and Social Equity in Urban Development

Investment theory has traditionally offered a narrow focus on the financial aspects of MIH, emphasising economic sustainability but often overlooking broader social implications (Fama and French, 2004). Although this theory underlines the significance of economic viability, it marginalises the qualitative dimensions of urban living, such as social inclusion, community engagement, and quality of life for residents (Gruis and Nieboer, 2004). Fainstein's, (2014) concept of "The Just City" introduces a framework for urban development that prioritises fairness, equity, and diversity. This approach shifts the focus from purely economic metrics to include social dimensions of MIH, advocating for developments that achieve financial sustainability alongside social equity and inclusiveness. By incorporating this theoretical perspective, MIH research can adopt a broader set of success metrics, including equitable access to amenities, social integration, and participatory governance, aligning with the Sustainable Development Goals (United Nations, 2015).

NIMBYism's Impact on Mixed Income Housing Development

The phenomenon of NIMBYism significantly hampers the progress of MIH developments by deterring investment and complicating the development process, making it a cumbersome and high-risk endeavour for stakeholders. This resistance often escalates into legal battles, primarily due to concerns over potential declines in neighbourhood property values (Bone, 2019; Haffner and Hulse, 2021; Klug et al., 2013; Krings and Schusler, 2020; Summers and Fields, 2022; Wu et al., 2022). The pervasive negative perceptions surrounding MIH underscore a critical knowledge gap in both developed and developing contexts, despite the urgent demand for effective solutions to mitigate NIMBYism, as exemplified by service delivery protests in South African cities (Daryanto and Song, 2021; Devine-Wright and Quinn, 2020; Escalera-Reyes, 2020; Simbanegavi and Ijasan, 2022; Summers and Fields, 2022).

Assessing Viability and Sustainability in MIH Integration

A deeper exploration into the factors that underpin the viability and sustainability of MIH is essential for improving housing outcomes. The literature presents more questions than definitive answers on the principles guiding the integration within MIH, reflecting a lack of consensus on the optimal mix of income groups and the scale at which this mixing should occur to achieve desired social and economic benefits (Brandén et al., 2023; Galster et al., 2010; Galster, 2011; Joseph, 2019; Onatu and Baloyi, 2020). These inquiries touch upon the foundational aspects of MIH, such as the extent of income mixing, the demographic composition that constitutes an "ideal" mix, and the geographical scale pertinent to measuring this mix.

Strategies for Enhancing MIH Development and Investment through EUIT

Addressing these uncertainties, the current study endeavours to refine investment guidelines for MIH by evaluating the necessity of legal frameworks for enforcement, identifying effective strategies for delivery, and determining the optimal location, design, and management practices that contribute to the sustainable development of MIH. It seeks to establish how mixed-income communities can be engineered as viable investment assets, thereby enhancing the value provided to all stakeholders involved. This comprehensive approach aims not only to facilitate the successful implementation of MIH but also to align these developments with broader objectives of inclusivity and sustainability in housing policy. The South African landscape presents unique challenges for MIH, influenced by historical, socio-economic, and spatial factors. Despite the recognised need for such developments, barriers including the NIMBY syndrome, legislative complexities, and financial constraints persist. These obstacles underscore the critical role of adopting the EUIT framework, which emphasises inclusive, participatory, and sustainable urban planning and development strategies.

Methodology

Qualitative Methodology for MIH Investment Analysis

Triangulated Qualitative Approach in MIH Research

This study employs a qualitative research methodology, utilising semi-structured interviews with developers and NGOs actively engaged in housing development (Saunders et al., 2023). Complementing these interviews, guided and unguided site visits were conducted to gather non-participant observations between 2017 and 2018, alongside discussions with residents and real estate agents (Guest et al., 2006). This approach enabled the triangulation of data sources, wherein interview data were prioritised over information obtained from document reviews and non-participant observations, reflecting a comprehensive multi-method strategy (Barnham, 2015). Preliminary data collection included site visits, initial interviews, and spontaneous face-to-face interviews, generating handwritten notes that were subsequently incorporated into the study (Couper, 2017). This data collection process was designed to capture nuanced responses to specific questions, facilitating thematic analysis through colour coding in an iterative manner, in line with the methodologies proposed by Sousa and Rojjanasrirat, (2011), Polit and Beck, (2010), and Adams et al., (2016). The purpose was not to amass a large number of informants but rather to reach a point of saturation through exhaustive data collection, with interviews ranging from 20 minutes to one hour in duration (Guest et al., 2006).

Semi-Structured Interviews for In-Depth MIH Analysis

Semi-structured interviews probed into the theoretical convergence derived from literature, promoting a thorough examination of pertinent issues related to mixed housing developments (Saunders et al., 2023). The validation of emergent themes was pursued in a subsequent phase of data collection, wherein six expert informants were engaged to synthesise and contextualise the diverse perspectives unearthed from the initial interviews. A non-random, purposive selection strategy was employed, targeting individuals with a minimum of three years' experience across sectors pertinent to MIH developments, thereby ensuring that informants possessed the requisite depth of knowledge (Saunders et al., 2023). Data was primarily gathered from developers, estate agents, government departments, residents of Cosmo City, neighbouring community members, NGOs, and financial institutions, culminating in a robust dataset derived from 20 informants, as outlined

in Table 1 This methodological framework underscores the study's commitment to capturing a comprehensive understanding of MIH developments through a meticulously structured qualitative inquiry (Curran, 2016).

Table 1: Informant Profiles and Data Collection Methods for Mixed Income Housing

No.	Profession	Role	Type	Date
1	6th annual Africa Property Investment (API)	Analyst	Documents & Observation	2015
2	Developer	Manager	Personal	6-May 2017
3	Estate Agent	Manager	Personal	20-May 2017
4	Banker	Investment Analyst	Personal	27-May 2017
5	Developer	Manager	Personal	3-Jun 2017
6	Banker	Property Investment Analyst	Personal	22-Jun 2017
7	Developer	Manager	Personal	5-Jul 2017
8	Estate Agent	Director	Personal	23-Jul 2017
9	Resident	Accountant Manager	Seminar	24-Jul 2017
10	Developer	Manager	Personal	24-Jul 2017
11	National Department of Human Settlements	Manager	Notes	6-Oct 2017
12	Gauteng City Region Observatory (GCRO) Civil servant?	Assistant Director	Documents & Observation	15-Aug 2017
13	Surveyor General Office	Surveyor General	Personal	10-Nov 2017
14	Cosmo City Resident	Manager	Personal	11-Feb 2018
15	Cosmo City Resident	Manager	Personal	11-Feb 2018
16	Developer	Manager	Personal	21-Feb 2018
17	Social Housing Institute	Director	Personal	27-Feb 2018
18	World-Wide Fund NGO executive	Manager	Personal	04 Mar 2018
19	NGO executive	Manager	Personal	10-Mar 2018
20	Real estate investment	Property Analyst	Personal	13-Apr 2018

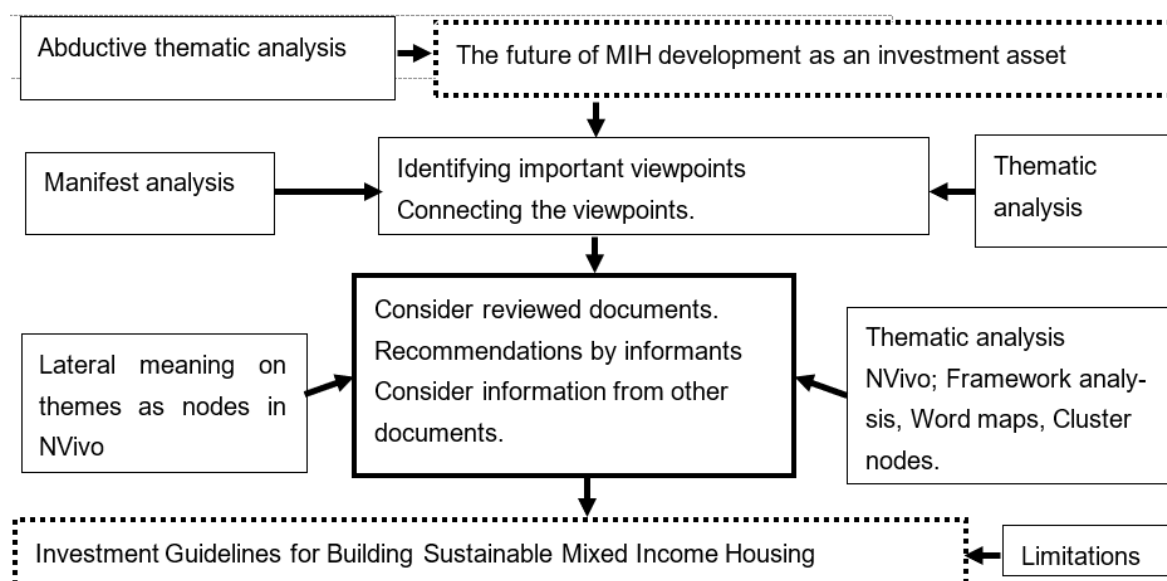
Employing the Delphi Method in MIH Research Analysis

In this study, the Delphi method served as an instrumental tool for engaging experts in the evaluation of the research findings presented. Through this iterative process, experts were able to deliberate on the results, employing theoretical replication to reconcile opposing perspectives and establish a consensus (Linstone and Turoff, 1975). Consistent with the recommendations of Lancaster, (2017), pseudonyms were utilised to maintain the anonymity and confidentiality of participants. The flexible nature of the open-ended, semi-structured conversational approach facilitated dynamic two-way communication (Alam, 2024; Yin, 2015). This methodology enabled the corroboration of findings related to MIH implementation and investment guidelines.

Utilising NVivo for Thematic Analysis

Depth was achieved using Non-numerical Unstructured Data Indexing Searching (QSR NUD*IST) Vivo (NVivo 11), a software designed for sophisticated qualitative data analysis, which was utilised to conduct an extensive thematic analysis. This analytical process aimed to refine the implementation investment guidelines for future MIH developments, a summary of which is depicted in Figure 2. The use of NVivo facilitated the extraction of nuanced insights and fostered the integration of diverse viewpoints into a coherent set of guidelines for MIH investment, enhancing the study's contribution to the field (Burgis-Kasthala et al., 2024).

Figure 2: Analytical Framework for Evaluating MIH Investment Strategies Using Thematic Analysis



Analysis of Data

NVivo-Enhanced Analysis for MIH Investment Insights

Insights from NVivo Analysis on MIH Investments

Utilising analytical tools such as 'framework analysis,' 'word maps,' 'cluster nodes,' and 'explore' functions within NVivo, a meticulous content analysis was conducted using Excel. This process illuminated both congruent and divergent patterns that, in turn, elucidated guidelines based on informant perspectives regarding the risk-return trade-offs of MIH investment. Thematic analysis facilitated the uncovering of latent meanings and investor preferences related to MIH developments. Within the South African context, the enduring legacy of apartheid imbues racially integrated neighbourhoods with novelty and complexity. Promoting integration through the creation of inclusive outdoor spaces offers a potential pathway to address this challenge (Landman and Du Toit, 2014). The application of abductive reasoning within the thematic analysis identified key viewpoints that could potentially ameliorate existing challenges within MIH developments. Nonetheless, it is important to acknowledge the potential for subjective bias among informants, given the sensitive nature of MIH developments in South Africa—where the concept inherently involves the integration of disparate socio-economic groups, often interpreted as the cohabitation of historically segregated racial groups within the same housing structures.

Cluster Analysis Insights on MIH Policy and Integration

Cluster analysis has yielded pivotal insights into the debate over whether Inclusive Housing Policy (IHP) should evolve into legislation or remain as a policy directive. This analytical approach grouped together themes related to race and income level integration, grounds for IHP opposition, and strategies for the sustainable development of MIH. A significant revelation of this analysis is the active role of IHP as a governmental tool for fostering integration within residential markets. A color-coded thematic cluster associated with PPPs identified crucial factors such as adept asset and property management, institutional support structures, comprehensive amenities, investor preferences, and financial grants as integral to creating viable and sustainable MIH initiatives led by the private sector. This convergence of themes points towards a consensus on MIH as an attractive proposition for the private sector, contingent on enhanced investor incentives and amenity offerings within housing developments. The analysis further indicates an imperative to augment subsidy allocations as part of the incentive-based financing model, addressing the costs associated with land acquisition, land infill, restitution, and the strategic placement of MIH on urban peripheries—thus underscoring the critical nexus between land-related issues and MIH viability. The thematic clusters revealed a motivation within MIH developments for 'pepper potting'—a typology that promotes integration by dispersing subsidised housing units among market-rate homes, aiming to prevent socioeconomic segregation and foster inclusive communities.

Word Map Analysis and Delphi Validation

The word map analysis within the context of MIH discourse revealed the prominence of terms such as 'housing developments' and 'people,' underscoring the fundamental aim of MIH projects: to serve the needs of the populace. Conversely, terms like 'land,' 'government,' 'MIH,' and particularly 'rich,' 'poor,' 'affordable,' and 'mixing' were less prominent, yet intrinsic to the discourse. This visualisation reaffirmed that the essence of MIH developments is to provide housing solutions responsive to the demands of the community. To validate these findings and achieve consensus on emergent and seemingly contradictory themes, the Delphi method was employed—a structured process of expert consultation that seeks to converge opinions on specific issues (Renzi and Freitas, 2015). Participants in the Delphi panel were tasked with evaluating the feasibility of the proposed guidelines for MIH implementation, particularly those designed to mitigate the effects of Nimbysism in South African MIH initiatives. The systematic application of Delphi validation interrogated the guidelines' viability, refining the recommendations to ensure their alignment with the operational realities of MIH development and societal acceptance.

Findings and Discussion

Comprehensive Findings on MIH Development Strategies

Six Thematic Insights for Inclusive MIH Development

The study elucidates six salient themes that align with the objectives of United Nations Sustainable Development Goal 11, which strives to cultivate cities that are inclusive, safe, resilient, and sustainable. Anchored in investment theory, the research methodically constructs a set of logical guidelines for the development of inclusive housing. This is achieved through a rigorous content analysis of interview data, with South Africa serving as a contextual backdrop. The subsequent sections distil these findings into six thematic areas

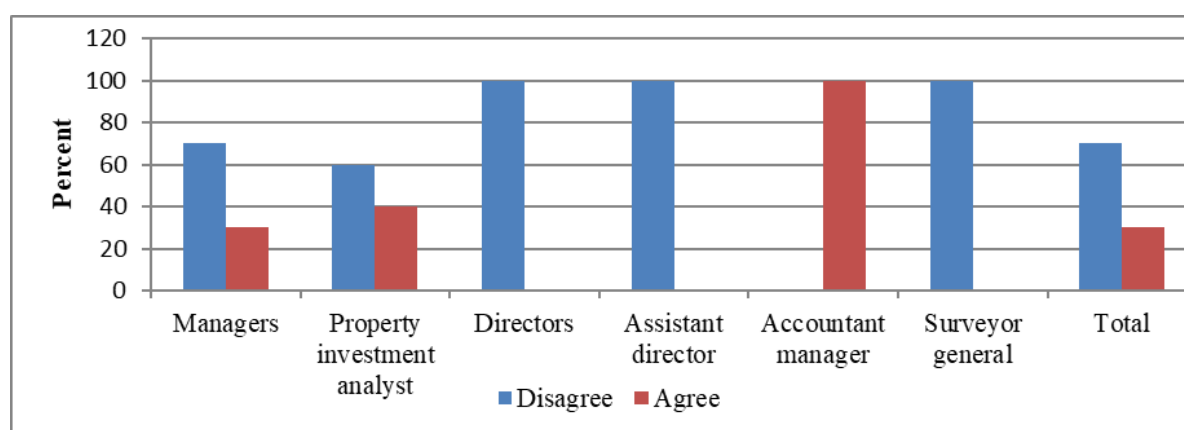
that collectively provide a roadmap for advancing inclusive urban development within the framework of MIH.

MIH Viability Beyond Legislative Mandates in South Africa

MIH Success Independent of IHP Legislation

The study's findings indicate that MIH developments are viable without the necessity of IHP becoming legislated. As illustrated in Figure 3, a significant majority, approximately 70%, of informants categorised as managers, perceived no requirement for IHP to transition into law. This perspective is in concordance with the insights of Khadduri and Martin, (1997), who posited that MIH could function effectively without dedicated policies, provided that there are mechanisms in place to subsidise housing for the lowest income segments of the population.

Figure 3: Informant Agreement on the Necessity of Inclusionary Housing Policy Legislation for Successful MIH Development



IHP's Role in Supporting Affordable MIH Developments

The implementation of IHP has been deemed adequate in its current form. Legislation of IHP is not imperative, as the existing policy framework sufficiently compels the inclusion of affordable housing units within MIH developments through strategic negotiation leveraging bulk infrastructure commitments. Detailed examination indicates that the provision of government grants, including Urban Settlements Development Grants (USDGs), Human Settlements Development Grants (HSDGs), and Department of Energy subsidies, are instrumental in encouraging the integration of affordable units into MIH projects. Without these financial supports, MIH developments would struggle to achieve economically viable yields. An MIH development that amalgamates Reconstruction and Development Programme (RDP) housing, Finance Linked Individual Subsidy Programme (FLISP) units, rentals, and upscale residences can effectively utilise the Restructuring Capital Grant (RCG) alongside other institutional subsidies. These subsidies are critical for promoting the development of rental housing stocks in proximity to Transport Oriented Developments (TODs), enhancing the accessibility and affordability of housing in well-located urban areas.

PPPs and NGOs as Keys to Sustainable MIH Implementation

PPP Model: A Catalyst for MIH Development Success

A substantial 95% of informants advocate for a robust PPP model in housing delivery, suggesting contractual provisions that compel developers to incorporate affordable residential units into new MIH projects. Such financing incentives under PPP agreements are instrumental in enabling stakeholders to significantly shape the scope and scale of MIH development. Effective PPPs have the transformative capacity to render MIH developments not only viable but also sustainable investment avenues. A successful PPP arrangement empowers developers to assume responsibility for constructing well-built structures. This research demonstrates that the most efficacious institutional structure materialises when private developers furnish municipalities with Urban Management Grants (UMG), with the expectation of long-term financial recuperation. Such grants bolster the essential maintenance of roads, water, and sewage systems at the nascent stages of MIH development, fortifying the infrastructure against potential overburdening and public health crises like cholera outbreaks.

NGO and PPP Collaborations Boost MIH Sustainability

Despite challenges, notable interest from entities such as the World-Wide Fund (WWF) and Nedbank Green Trust (NGT) signals an affirmative response to initiatives aimed at reducing household utility expenses by approximately 45%, thereby promoting healthy, green, and resilient affordable housing (Simbanegavi and Ijasa, 2022; Weaich et al., 2023). The collaborative model, epitomised by Enterprise Community Partners' investment, emphasises PPPs as the cornerstone of sustainable housing delivery, resonating with the assertions of Khadduri and Martin, (1997). Financing through the provision of bulk infrastructure and social amenities fosters an environment where government requisites for unit allocations in exchange for its investments pave the way for a systematic and integrated housing delivery. In essence, the PPP model facilitates stakeholder engagement in housing provision and development scale, underscoring the viability of PPPs as a means to ensure housing quality and consistency, driven by the private sector while supported by government facilitation. Increased subsidy grants are imperative to elevate the standards and size of housing within MIH projects, thereby ensuring equitable and integrated neighbourhoods. This presents an opportunity for construction companies and governments to align efforts, sharing costs for infrastructure improvements and enhancing the feasibility of development. The inclination among investors toward affordable housing as a low-risk, stable return venture is made possible through these institutional collaborations.

Strategic Funding and Regulation in MIH Development

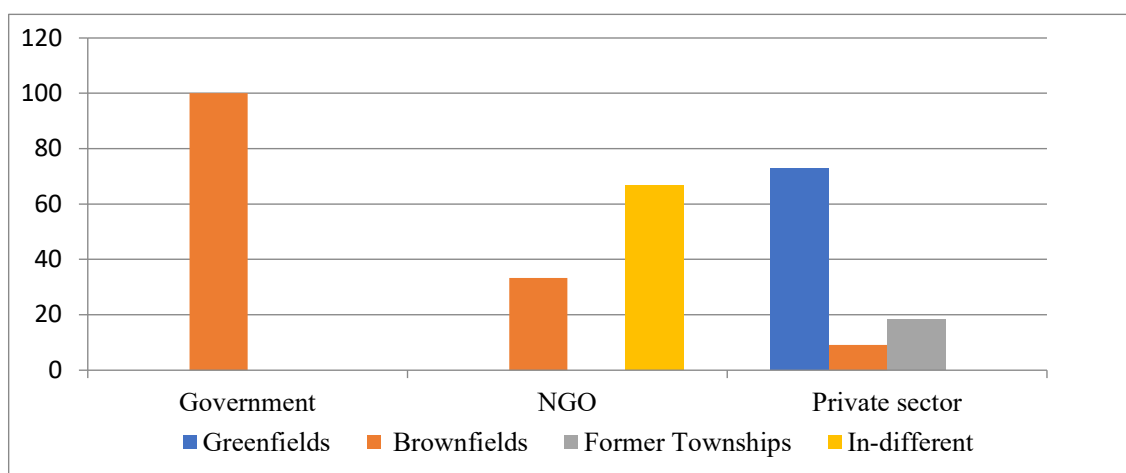
The findings culminate in a consensus among informants: municipalities are urged to implement building and town planning regulations to eliminate informality within MIH developments. However, the allocation of equitable share funds remains contentious, contingent upon the extent of informal settlements within a municipality's jurisdiction. Consequently, cities with fewer informal settlements are compelled to allocate their own funds to support new housing initiatives. The study further illuminates the pivotal role of funding from organisations like the WWF and NGT, as well as the Gauteng Partnership Fund (GPF), in advancing sustainable MIH models.

Greenfield vs. Brownfield: Preferences in MIH Development

MIH Development: Private vs. Government Site Preferences

Within the private sector, a substantial 70% of informants favour greenfield sites for MIH development, citing the potential for superior design options and a diverse mix of housing typologies, as presented in Figure 4. Conversely, government sector informants display a unanimous preference for brownfield sites, revealing a stark dichotomy in locational priorities for MIH initiatives.

Figure 4: Sectoral Preferences for MIH Development Locations



MIH Locational Preferences by Sector Analysis

Figure 4 compares the locational preferences for MIH developments across three different sectors: Government, NGOs, and the Private sector. It shows that government informants overwhelmingly prefer brownfield sites, while the private sector largely favours greenfield locations. NGOs appear to have a more balanced view but show a slight preference for former townships. A small proportion of private sector respondents are indifferent to the site location.

Debating MIH Locations: Economics, Equity, and Urban Integration

The siting of MIH developments is a subject of considerable debate within the academic literature. Developers advocate for the placement of MIH's on urban peripheries, asserting that these locales are not only market-driven but also yield greater profitability due to lower land costs and, consequently, higher investment returns. In contrast, residents from less privileged backgrounds express a preference for a job-housing equilibrium, with artisans and informal sector workers desiring proximity to economic centres to reduce commute times and enhance livelihood opportunities. The government's stance aligns with the desire to redress the spatial legacies of apartheid. By situating MIH developments in more affluent neighbourhoods, the aim is to dismantle segregated urban structures, foster socio-economic integration, and, critically, restore historically dispossessed black communities to their ancestral lands. This approach positions restitution as a key driver of urban redevelopment within economic hubs. Nonetheless, the feasibility of this approach is challenged by the escalating costs associated with land near economic zones and the inevitable scarcity of such land as development progresses.

Greenfields for MIH: Balancing Viability with Community Needs

The discourse contends that developing MIH's in greenfield areas is acceptable, provided that these new developments are complemented by necessary amenities and infrastructure

that enrich residents' quality of life. This perspective is grounded in location theory, which posits that properties in close proximity to commercial centres, infrastructure, and transport networks command higher values than those located farther afield. There is a shared agreement among stakeholders that the success of new MIH projects hinges on the inclusion of essential community facilities, such as schools and parks. A strategy proving effective is the cross-subsidisation of public housing units with those at market rates, enabling a diverse community composition while maintaining economic viability.

Income-based Zoning in MIH: A Strategy for Success

Strategies for Effective MIH Developments: Beyond Segregation

Informants expressed a preference for MIH developments that integrate low, middle, and high-income neighbourhoods, not through physical barriers like walls but via demarcations such as roads. The integration and management of RDP subsidy housing within MIH's are seen as critical to their success. There is a prevalent view that 'pepper-potted' designs do not align with South African urban dynamics due to concerns such as elevated crime rates. Instead, a more effective MIH investment would offer varied housing typologies catering to diverse income levels. Open plan designs are suggested as a measure to combat crime, encouraging pedestrian movement to amenities and TODs. A significant 70% of informants indicated cultural issues such as noise and crime among the poorer populations as challenges within MIH's. Simbanegavi, (2019) advocates for a universal, community-centric strategy to tackle these urban housing challenges, including infrastructural improvements within TODs located in greenfield MIH developments. This approach would integrate businesses and amenities, creating vibrant communities. The focus for sustainable MIH should be on income diversity in housing rather than on race, religion, or culture, with most informants disavouring the 'pepper-potted' approach as ineffective in poverty deconcentrating or racial integration.

Solutions for Mixed-Income Housing Sustainability

The presence of poorer populations in MIH's close to economic hubs may pose marketing challenges for the sale and rental of properties within these developments (Woo et al., 2016). However, successful, and sustainable MIH's can bolster municipal revenue and property values, contingent on residents contributing to municipal funds. Contrasting with South African practices, the United States employs a rental voucher system to facilitate mobility of low-income individuals to more affluent neighbourhoods, although this system is not without its issues, as property owners may prefer wealthier tenants. An inclusive MIH design would also account for the needs of the elderly and impoverished, with a structured division between subsidised and market-rate sections. Entities such as the Johannesburg Social Housing Company (JOSHCO) and the Johannesburg Housing Company (JHC) play pivotal roles in this aspect. Ensuring the demand-driven nature of all rental components is crucial for the longevity of the social housing aspect of MIH's, which are overseen by an accrediting body such as the Social Housing Authority Board (SHAB).

Optimising Asset and Property Management for MIH Sustainability

Advancing MIH Through Strategic Asset Management

Informants advocated for an advanced asset and property management strategy that integrates investment performance metrics, thereby enhancing the viability and sustainability of MIH developments. Such managerial proficiency is critical for realising greater investment returns and mitigating risks. This aligns with the views of Gruis and

Nieboer, (2004), who posited that effective asset management strategies can expand housing supply, while improved property management sustains the stock, particularly within the social housing segment of MIH. The employment of asset and property management tools is deemed essential for the enduring success of MIH's; in their absence, MIH's risk degenerating into low-income areas plagued by crime (Simbanegavi et al., 2021).

Critical Role of Asset Management in MIH Success

Asset management remains imperative for sourcing land for new developments. Government entities like the Housing Development Agency (HDA) are pivotal in acquiring land through governmental efforts, a critical step in diminishing land costs that contribute to the high expense of housing. In concurrence with Gethe and Simbanegavi, (2022), Informant 2 emphasised the necessity for municipalities to implement occupancy certificates and collect revenue for reinvestment in similar projects to capture and maintain land value. Buron et al., (2006) underscored the importance of enhancing marketing strategies for properties within sustainable MIH's. It is recommended that governmental controls be established to regulate activities within these developments and prevent informal practices. Experienced entities are crucial for managing these developments, with property management companies playing a vital role, particularly for the social rented components of MIH. The management of regulatory and incentive programs at the development level is essential, with training being a key component until such responsibilities can be transitioned to city authorities. Inadequate property management post-development can negatively impact the viability and sustainability of MIH developments.

Strategies for Effective MIH Property Management

A substantial majority of informants—85%—suggest that cities could establish property management offices or oversee body corporates, employing software like Novtel and MDA for meticulous reporting on maintenance costs. Maintaining positive tenant-property owner relations is essential to ensure consistent rental payments. Such initiatives could extend to cities supervising community associations that mitigate issues like illegal dumping. One informant highlighted the necessity for stringent occupancy controls to prevent epidemics related to infrastructure strain, with monitoring by City Planning departments being paramount. Motlhabane, (2015) suggests that the RDP housing delivery system requires effective monitoring to circumvent negative repercussions. While body corporates can be instrumental, formulating rules for common areas presents challenges. Therefore, training to curtail maintenance costs is crucial, particularly as social housing, a component of MIH, often incurs substantial upkeep expenses.

Empowering Communities for Sustainable MIH Development

Skills Development: Foundation for Affordable Housing Access

Informants highlighted the necessity of education and skills development as crucial for enabling households to afford units within MIH developments. Recognising that MIH projects often extend over several years, the advancement of skills through SMMEs was seen as essential. Building officers, plumbers, bricklayers, and those with soft skills require training tailored to the needs of these developments. This initiative demands rigorous monitoring to maintain the quality of the housing units produced.

Enhancing MIH Viability: Economic Integration and Transparency

A critical consideration is the facilitation of industry relocation to greenfield sites designated for MIH developments. Approximately half of the informants emphasised the importance of sustainable 'green wages' as a means to integrate workers into the broader economic framework. The equitable distribution of wealth, particularly through increased wages, is seen as imperative. Consequently, there is a call for augmented funding for informal trade sectors and education in financial management skills to enhance the affordability and sustainability of housing investments within MIH projects. Such measures are intended to address historical challenges such as the non-payment of housing loans and service fee boycotts, which Tissington, (2010) identified as significant impediments to the success of social housing initiatives. The transparency of stock exchange-listed development companies is vital for allowing a more accurate assessment of residential market risks by investors, as posited by Boshoff, (2013). This transparency contributes to a more robust understanding of investment risks, potentially leading to a more stable and reliable residential investment market.

Conclusion

Guiding Future MIH Developments: An Integrated Approach

Strategic Guidelines for Sustainable MIH Development

The pivotal guidelines proposed for refining future MIH developments derive from theoretical constructs influenced by investment theory. These guidelines encompass fundamental risk mitigation principles recognised in literature, tailored specifically to MIH developments, with the ambition of achieving racial transformation, integration, and the alleviation of urban poverty through inclusive housing in South Africa. The elements of investment that facilitate these goals include a) the enforceability of inclusive housing by policy or legal means; b) an optimal PPP delivery model; c) strategically chosen locations for MIH; d) a considered approach to the mix of households in terms of design, racial background, and socioeconomic status; and e) refined asset and property management strategies to ensure MIH developments are both viable and sustainable.

Optimising MIH: Policy Over Legislation through PPPs

The research critically examined the debate over whether MIH should be legislated or remain as policy. The findings indicate no necessity for IHP to transition into law when MIH delivery is effectively executed via a well-structured PPP model, allowing for a shared distribution of risks and rewards between the government and private entities. The conversion of policy into law is deemed unnecessary when strategic negotiations tied to bulk infrastructure provision can enforce the inclusion of a reasonable proportion of low-income housing units within MIHs, ensuring the attainment of the socio-economic objectives of inclusive housing. It is envisioned that government and municipalities would supply land and essential services, thereby reducing developers' costs and enabling the private sector to construct quality housing that preserves investment value over time. The ideal scenario for creating viable and sustainable MIH developments hinges on a synergistic PPP framework, positioning MIH as an investment asset beyond a government-mandated socio-spatial initiative. This perspective can unlock significant funding for MIH developments to enhance housing quality and mitigate NIMBYism. Fundraising through partnerships provides tangible solutions for housing finance deficits, with the public sector bargaining for units of affordable housing in return for financial and infrastructural contributions. Engaging private sector investment for infrastructure improvements

enhances the feasibility of development, presenting affordable housing as a low-risk investment with a stable return. Affordability, paired with sustainable locations like Greenfields, equipped with infrastructure and services, bolsters MIH developments. South African communities are receptive to the notion of integration, particularly in MIH's equipped with enhanced amenities and services.

MIH's Role in Achieving Sustainable Urban Integration

The sustainability of MIH's rests on creating diverse income segments within a single development, demarcated by roads rather than dispersing lower-income households throughout. This structure allows for financial mobility within the community. Properly adjusted asset and property management strategies can thus ensure the long-term sustainability of MIH developments by fostering effective resource allocation and revenue collection akin to a real estate enterprise, thus maintaining the viability of MIH investments. Without such strategies, MIH's risk degenerating into neglected low-income housing. MIH developments that transcend low-income stereotypes can become thriving mixed-use green communities, potentially curbing NIMBY sentiments and stabilising house prices. In the absence of MIH's, the poorest urban dwellers in South Africa are likely to persist in substandard living conditions. Statistics from Stats SA reflect that over 30.4 million South Africans were living in poverty in 2015, based on the Upper-Bound Poverty Line (UBPL) of R992 per person per month in 2015 prices, underscoring the urgency for inclusive housing solutions (Kruger, 2018).

Recommendations

Investment Strategies for Sustainable Mixed-Income Housing

Addressing the Challenges and Policies for Inclusive Urban Housing

The persistent housing shortfall, exacerbated by global financial crises, environmental disasters, political and religious unrest, migration, population growth, and escalating urbanisation rates, presents a formidable challenge for South Africa and many other nations (Myeni and Okem, 2019). The effective functioning of residential markets, within the context of existing policies, initiatives, and programs, is essential to uphold housing as a human right, as recognised by UN-HABITAT, and to fulfil the United Nations Sustainable Development Goal 11, which aspires to create cities that are inclusive, safe, resilient, and sustainable. The IHP stands out as a pivotal urban policy driving sustainable MIH developments that foster inclusivity in housing. Yet, MIH developments are often hindered by NIMBYism, slowing down development processes and impeding the flow of investments into these projects, posing risks to stakeholders.

To address these challenges, the study sets forth several recommendations for all stakeholders within the MIH residential market:

- MIH should be repositioned as an investment asset, moving beyond a government-led social-spatial transformation program to provide clearer implementation paths for inclusive housing policies.
- Inclusionary housing policies should incentivise market-driven solutions, allowing the private sector to capitalise on its strengths, while the public sector focuses on regulation and monitoring.
- To support the social and economic aspects of MIH, governments and municipalities should provide land and infrastructure, thereby lowering service costs for investors.

- In exchange for government provisions, investors should capitalise these subsidies into affordable units to prevent an imbalance of investment returns favouring the private sector.
- Community-based PPPs can enhance traditional collaborative PPPs, addressing inefficiencies in government housing provision and self-interest in the private sector.
- Feasibility studies are crucial to understand neighbourhood expectations and to devise successful MIH strategies, considering that compensating for house price reductions might be impractical in developing countries.
- Enhanced security services could alleviate apprehensions toward MIH, typically occupied by lower-income and black communities.
- Future MIH developments should integrate mixed-use designs in greenfield locations, planned to ensure the functionality of all housing components.
- Complementary infrastructure and amenities should be included in new greenfield MIHs, making them comprehensive and self-sufficient neighbourhoods.
- Municipalities should collaborate with management companies or strategize to secure land and infrastructure. Funding from various grants can support MIH developments.
- An income-based criterion is preferred for creating multi-tenured MIHs, avoiding racial segregation.
- In rented MIH sectors, mixing diverse communities could be successful, especially among the youth, promoting equality and cohesion.
- MIH developments should facilitate skills development through SMMEs, providing employment opportunities to aid tenants in meeting their financial obligations.

These guidelines are designed to navigate the complexities of MIH development, ensuring that such initiatives contribute constructively to urban environments and support the growth of vibrant, inclusive communities.

Strategies for Inclusive Urban Housing Development

Guiding Sustainable Mixed-Income Housing Development

The realisation of sustainable MIH developments is crucial for addressing the growing need for inclusive urban housing. To navigate the complexities inherent in such ventures, it is imperative to establish a framework that prioritises the integrity and effectiveness of policy implementations, maintains the diversity of income groups, leverages urban land for social equity, and capitalises on the investment potential of MIH developments. This paper explores strategic guidelines that can steer the future of MIH projects towards achieving these objectives.

- An incentive based IHP necessitates rigorous monitoring and evaluation to ensure that government grants and funds allocated for subsidies are effectively translated into low-income housing within MIH developments.
- There must be a deliberate effort to maintain the sustainability of MIH developments; stakeholders investing in MIH should focus on creating developments that retain their mixed-income character into the future.
- Urban regeneration programs could incorporate the utilisation of undeveloped restitution land to construct necessary housing proximal to economic centres.
- Mixed-use developments in greenfield areas present an opportunity for MIH projects to become valuable real estate investments, offering quality housing that sustains its worth over time.

- Municipalities stand to gain from MIH developments by partnering with skilled asset and property management firms, ensuring that MIH communities do not devolve into impoverished neighbourhoods.

The journey towards establishing successful and enduring MIH developments necessitates a multifaceted approach that aligns policy, investment, and community objectives. Monitoring and evaluation of incentive-based policies, coupled with strategic investment in diverse, mixed-income communities, can result in sustainable urban growth and regeneration. The utilisation of land for equitable housing development near economic centres, combined with the investment allure of greenfield mixed-use projects, offers a pathway to quality, valuable housing. Municipalities have a critical role to play, working in tandem with property management experts to maintain the standards and desirability of MIH neighbourhoods. In synthesising these strategies, we pave the way for MIH developments that not only meet the immediate housing needs but also contribute to the long-term socio-economic dynamism of urban landscapes, embodying the essence of inclusive living spaces.

Limitations of the Study

Balancing Perspectives in Housing Research

While interview data provides a wealth of forward-looking perspectives, it is susceptible to the influence of subjective opinions, potentially biased by informants' affiliations or company perspectives. To mitigate these limitations and enhance the objectivity of the research, this study incorporated document reviews and non-participant observations, adopting a contextually interpretive approach in both data collection and analysis phases. Additionally, the Delphi method was employed to convene experts in a systematic evaluation of the research findings, thereby bolstering the robustness and credibility of the study's conclusions.

Acknowledgments

This research was part of a PhD degree at the University of the Witwatersrand.

Conflicts of Interest

The authors declare no conflicts of interest.

Funding

No grant funding was utilised in the development of this study.

Data Availability Statement

The dataset analysed during the current study is not publicly available due to concerns regarding personal privacy and confidentiality. The research dataset involves sensitive information that could potentially identify individual participants, thus necessitating stringent measures to protect privacy in accordance with ethical guidelines and legal requirements. Access to the data is restricted to the research team and is unavailable to the public. The data used is depicted in Table 1: Informant Profiles and Data Collection Methods for Mixed Income Housing.

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