



Real Estate Portfolio Valuation Techniques to Unlock Funding for Affordable Housing in Africa

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Abstract

The housing crisis in Africa presents a significant challenge, with millions lacking access to affordable housing. This paper explores the role of real estate portfolio valuation techniques in unlocking funding for affordable housing projects across the continent. The study examines traditional valuation methods such as the Sales Comparison, Cost, and Income Capitalization approaches, alongside modern techniques like Automated Valuation Models (AVMs) and GIS-based valuations. These methods are essential in providing accurate property assessments, which are critical for attracting investment. The paper also highlights the impact of real estate portfolio diversification in mitigating financial risks and enhancing funding accessibility. Legal, regulatory, and market barriers to funding are discussed, with a focus on institutional challenges, such as land tenure issues and the lack of credit histories, that complicate the financing of affordable housing projects. The study concludes that real estate valuation is a key tool in unlocking funding for affordable housing, but substantial barriers remain, including data accuracy and political instability. Policy reforms and the adoption of innovative financing models are necessary to address these challenges and unlock the potential of affordable housing in Africa. Recommendations for future research and practice include the development of market-specific valuation techniques and the exploration of new financial mechanisms to attract both local and international investment.

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1. Introduction

1.1 Overview of affordable housing in Africa

Affordable housing remains one of the most pressing issues in many African countries, with rapid urbanization exacerbating the problem. Across the continent, the demand for affordable housing outstrips supply, leading to overcrowded slums and informal settlements, particularly in fast-growing cities. Factors contributing to this housing shortage include high population growth, rural-to-urban migration, lack of financial resources, and inefficient urban planning ^[1].

In several African nations, more than half of the population lives in informal settlements without proper access to basic services such as clean water, sanitation, and electricity. This has resulted in poor living conditions that negatively affect public health, productivity, and overall well-being. Addressing the affordable housing deficit is essential not only for improving living standards but also for supporting the broader socio-economic development of the continent ^[2].

Affordable housing plays a critical role in fostering economic stability and social integration. It provides security to families, reduces inequality, and supports the development of the labor force by ensuring that workers can live closer to economic hubs

[3]. By investing in affordable housing, governments can stimulate job creation, especially in construction and infrastructure development, while also improving health outcomes through better living conditions. Therefore, addressing the housing crisis is not just a matter of providing shelter but also a strategy to drive broader economic growth and improve social cohesion across African nations [4].

1.2 The role of real estate portfolio valuation in unlocking funding

Real estate portfolio valuation is a critical process that enables the accurate assessment of the value of properties, helping to determine their potential to generate returns. In the context of affordable housing in Africa, portfolio valuation becomes instrumental in unlocking funding by providing investors and financial institutions with reliable data on the market potential and financial viability of housing projects [5]. Accurate valuations offer transparency, which is vital in attracting investment, particularly from private and institutional investors who are often cautious in unfamiliar or high-risk markets. Portfolio valuation helps to identify the best-performing assets and ensures that resources are allocated efficiently, fostering investor confidence and enabling better financial planning for developers [6].

Furthermore, the role of real estate portfolio valuation extends beyond initial funding acquisition. By regularly updating valuations, developers and investors can track the performance of their assets, adjust their strategies accordingly, and demonstrate the ongoing financial viability of affordable housing projects [7]. This continuous reassessment can play a pivotal role in securing long-term financing for the maintenance, renovation, or expansion of housing projects. With accurate and comprehensive valuation techniques, stakeholders are better equipped to make informed decisions, reducing financial risk and ensuring the sustainability of affordable housing initiatives [8].

1.3 Objective and scope of the paper

This paper aims to explore the role of real estate portfolio valuation techniques in unlocking funding for affordable housing projects across Africa. The scope of the research will focus on examining traditional and modern real estate valuation methods and their application to the African context, considering the unique challenges and opportunities present in the continent's housing sector. It will delve into how these valuation techniques can improve the financial feasibility of affordable housing, making it more attractive to investors and financing institutions. By understanding the intricacies of real estate portfolio valuation, the paper seeks to uncover how these techniques can bridge the funding gap for affordable housing and enhance the overall efficiency of investment in this critical sector.

The primary objective of the paper is to provide a detailed analysis of how real estate portfolio valuation can be leveraged to attract funding for affordable housing in Africa. This includes investigating the various financing mechanisms available, the challenges in applying traditional valuation models to the African market, and proposing strategies to overcome these barriers.

Ultimately, the paper will contribute to understanding how these valuation techniques can facilitate sustainable investment, improve the overall housing supply, and foster long-term socio-economic development across the continent. Expected outcomes include practical recommendations for

policy makers, investors, and developers to enhance the efficiency and effectiveness of funding mechanisms in affordable housing projects.

1.4 Literature Review Strategy and Scope

This literature review employed a targeted selection strategy to ensure that only the most relevant and credible sources were included. Academic journal articles, industry reports, and authoritative texts on real estate valuation, affordable housing, and financing mechanisms were prioritized. The review focused on literature published within the past 15 years to reflect current challenges and technological advancements relevant to Africa's housing sector. Studies were selected based on their empirical rigor, contextual relevance to African markets, and practical contributions to the discourse on valuation and funding.

Literature was included based on the following criteria: (1) direct relevance to real estate portfolio valuation or affordable housing financing; (2) applicability to African or comparable emerging markets; (3) availability of empirical or theoretical insights. Papers were excluded if they (1) focused solely on high-income economies without adaptation to Africa; (2) lacked methodological clarity; or (3) did not address either valuation techniques or funding mechanisms in meaningful depth. Preference was given to sources that discussed valuation in resource-constrained or informal real estate markets

2. Real estate valuation techniques

2.1 Traditional valuation methods

Traditional real estate valuation methods, such as the Sales Comparison Approach, Cost Approach, and Income Capitalization Approach, are commonly used in property assessments across global markets. The Sales Comparison Approach involves comparing a property to similar properties that have recently sold, adjusting for differences in size, location, and amenities [9]. The Cost Approach estimates a property's value based on the cost to replace or reproduce it, subtracting depreciation. The Income Capitalization Approach calculates value based on the income the property generates, converting expected income into value using a capitalization rate. These traditional methods provide a structured framework for estimating property values and can be particularly useful when market data is limited or when valuing properties with unique characteristics [10].

However, these traditional techniques come with limitations, especially in the context of African real estate markets. The Sales Comparison Approach can be challenging due to a lack of comparable sales data in many African cities, where informal settlements and limited formal transactions dominate. Similarly, the Cost Approach may not fully account for market forces or the local economic conditions that significantly affect property values. The Income Capitalization Approach, while widely used, may be difficult to apply in markets with low rental demand or unreliable data on income streams, which are common challenges in many African countries [11].

2.2 Modern valuation approaches and technology integration

Modern valuation approaches are increasingly leveraging technology to improve the accuracy and efficiency of property assessments. Automated Valuation Models (AVMs) are one such innovation, using algorithms and large datasets

to estimate property values quickly and accurately^[12]. AVMs utilize data from public property records, transaction databases, and even geographic information systems (GIS) to calculate a property's value in real time, minimizing human error and reducing the time and cost associated with traditional valuation methods. Another significant advancement is the use of GIS-based valuations, which integrate spatial data and mapping technology to assess a property's value based on its location, proximity to infrastructure, and neighborhood dynamics^[13]. The integration of digital technologies like AVMs and GIS has the potential to enhance real estate valuation in Africa significantly. These tools can provide more reliable and transparent valuation processes, especially in markets with limited access to formal data or underdeveloped real estate systems^[14]. Additionally, the automation of property assessments reduces human biases and accelerates the valuation process, making it easier for investors to assess properties quickly and accurately. While the adoption of these technologies is still in its early stages in many African countries, the increasing availability of mobile and internet access presents an opportunity for the real estate sector to incorporate these innovations into the valuation process, improving decision-making and funding accessibility^[15].

2.3 Valuation in the african context

Valuating real estate in Africa presents unique challenges that differ significantly from those in more developed markets. Traditional valuation techniques often struggle to account for the informal nature of many African property markets. A large portion of the population in African cities lives in informal settlements where property ownership is not formally registered, making it difficult to access reliable property transaction data^[9]. This lack of transparency and data can lead to inaccurate property assessments, affecting the ability to secure financing for real estate projects. Additionally, African markets are characterized by a high degree of regional variation, with local economic conditions, infrastructure quality, and property market dynamics varying greatly between countries and even cities^[9].

For real estate valuation to be effective in Africa, there is a need for region-specific adjustments. These adjustments may involve adapting traditional methods to better account for informal market transactions or using alternative data sources, such as community-based surveys or satellite imagery^[16]. The role of local market dynamics, such as the availability of land, population growth, and economic conditions, must also be factored into the valuation process to ensure that property values reflect the true market potential. By tailoring valuation techniques to the unique challenges and opportunities of the African context, stakeholders can better assess real estate investments and unlock funding for affordable housing projects across the continent^[17].

The reviewed literature collectively underscores the need for valuation models tailored to Africa's distinct real estate dynamics. While traditional methods like Sales Comparison and Income Capitalization are theoretically sound, their practical limitations in African contexts were consistently highlighted. Studies on Automated Valuation Models and GIS-based assessments emphasize the potential for innovation but caution against data inaccuracy and lack of infrastructure. The synthesis of these papers reveals a consensus: unlocking housing investment in Africa requires

both methodological flexibility and institutional reform. This review guided the development of the paper's arguments on valuation effectiveness and funding access.

3. Unlocking funding for affordable housing

3.1 Financing mechanisms for affordable housing in Africa

Accessing financing for affordable housing in Africa requires a diverse range of funding sources due to the scale of the housing deficit and the financial constraints faced by governments and developers. Traditional funding mechanisms include private equity and government subsidies, which are essential for large-scale projects. Private equity investment can provide much-needed capital, particularly for developers focused on high-impact housing projects^[18].

Government subsidies, on the other hand, often target low-income communities and aim to reduce the financial burden on end-users. Microfinance institutions, which typically provide smaller loans to individuals or small businesses, are also becoming an important source of funding for affordable housing, particularly in rural areas where access to mainstream finance is limited^[19].

In addition to these traditional sources, international aid and development funds are crucial in addressing Africa's housing crisis. International organizations, such as the World Bank and UN-Habitat, have played significant roles in financing affordable housing initiatives through grants, low-interest loans, and technical assistance^[20]. Real estate portfolios are an important tool in accessing these funds, as they allow developers and investors to pool resources from multiple sources. A well-managed portfolio can increase an investor's attractiveness to financing institutions by demonstrating a track record of successful projects and a diversified range of assets, which minimizes risks associated with individual investments^[21].

3.2 The impact of portfolio diversification on funding accessibility

Real estate portfolio diversification is a key strategy in reducing financial risks and improving the accessibility of funding for affordable housing projects. By diversifying across various property types, locations, and markets, investors and developers can spread risk, making their portfolios more resilient to market fluctuations and economic shocks^[22]. This is particularly important in Africa, where real estate markets can be volatile due to factors such as political instability, fluctuating commodity prices, and currency risk. Diversified portfolios help to ensure that the financial performance of individual projects does not overly depend on the success of a single asset, thereby reducing the likelihood of significant losses^[23].

For developers, effective portfolio management not only mitigates risk but also enhances investor confidence. Investors are more likely to commit funds to projects that show strong risk management practices and a diversified portfolio of real estate assets, as these factors increase the likelihood of steady returns^[24]. Furthermore, portfolio diversification helps developers to access a broader range of financing options, including private investors, institutional investors, and development banks, as these investors seek stable returns with managed risks. By strategically managing portfolios and demonstrating risk diversification, developers can unlock more funding and successfully pursue large-scale

affordable housing projects across the continent ^[25].

3.3 Risk management and financial feasibility

Risk management is a crucial component of financial feasibility in affordable housing investments. Effective risk management strategies help developers and investors identify, assess, and mitigate potential risks, such as construction delays, cost overruns, changes in interest rates, or unforeseen market fluctuations ^[26]. Robust valuation methods play a critical role in this process by providing accurate and up-to-date assessments of property values, market trends, and income potential. By employing valuation techniques, such as the income capitalization approach or modern digital models, investors can assess the financial viability of affordable housing projects and make informed decisions based on realistic expectations of return on investment ^[27].

Risk-adjusted returns are a key factor in influencing funding decisions for affordable housing projects. Investors are more likely to fund projects that offer attractive returns relative to the level of risk involved. Properly assessing the risks and returns of affordable housing projects ensures that these investments remain financially sustainable while maintaining affordability for the target population ^[28]. Furthermore, developing a solid understanding of the financial risks, such as changes in property values or political instability, allows stakeholders to plan for contingencies and secure the necessary capital. Through sound risk management practices and accurate valuations, developers can unlock funding and ensure the long-term success of affordable housing projects in Africa ^[29].

4. Legal, regulatory, and market considerations

4.1 Real estate regulation and policy landscape in Africa

The legal and regulatory frameworks governing real estate in African nations vary widely, reflecting the continent's diverse legal traditions, economic conditions, and political structures. In many countries, these frameworks are characterized by outdated laws, weak enforcement mechanisms, and fragmented institutions ^[30]. Real estate valuation is directly influenced by these factors, as reliable property assessments often depend on clear land registration, enforceable titles, and predictable legal procedures. Inconsistent land documentation systems and lengthy bureaucratic processes can delay valuations and hinder property transactions, limiting the efficiency and accuracy required for attracting serious investors to affordable housing projects ^[31].

Furthermore, inadequate urban planning policies and zoning laws complicate the process of acquiring land and developing housing. In countries with ambiguous land use classifications or overlapping regulatory jurisdictions, developers face additional hurdles in securing permits or compliance certificates. These inefficiencies not only increase development costs but also weaken investor confidence, thus reducing the flow of capital into the affordable housing sector. For valuation techniques to be effective and funding to be unlocked, legal and regulatory reforms must prioritize transparency, accountability, and institutional capacity within the real estate domain.

4.2 Institutional and market barriers to affordable housing financing

Institutional barriers present formidable challenges to financing affordable housing in Africa. One of the most

significant is the absence of formal credit histories for large segments of the population, particularly in rural or low-income urban areas ^[32]. This restricts individuals' access to mortgage finance and limits banks' ability to evaluate the creditworthiness of potential borrowers. Additionally, weak property rights and insecure land tenure discourage investment. Many people live on informally held land or lack legally recognized titles, which makes it difficult to use property as collateral and undermines the development of robust real estate markets ^[33].

Market-related challenges also impede the flow of capital into affordable housing. Real estate markets in many African countries remain underdeveloped, with low liquidity, limited data on property transactions, and high costs of construction materials and labor. These constraints inflate development costs and reduce return on investment, making affordable housing less attractive to private investors ^[34]. Moreover, macroeconomic instability, currency fluctuations, and inconsistent policy enforcement create an unpredictable investment environment. Without interventions to address these institutional and market deficiencies, the full potential of real estate portfolio valuation techniques to unlock funding for affordable housing will remain unrealized ^[35].

4.3 Policy recommendations for improving funding access

To overcome legal and market-related constraints and unlock funding for affordable housing, targeted policy reforms are essential. Governments must streamline land registration systems, improve access to formal credit, and ensure the legal recognition of property rights. This would not only strengthen the real estate valuation process but also increase investor confidence and broaden the pool of bankable housing projects. Moreover, updating urban planning frameworks and simplifying the permitting process would reduce delays and uncertainties in the development pipeline, helping to lower costs and improve project viability ^[36].

Incentivizing investment through fiscal measures is also critical. Tax breaks, reduced land lease rates, and import duty waivers for construction materials can lower barriers for developers and investors. Public-private partnerships can further catalyze funding by combining public land or subsidies with private sector expertise and capital. Additionally, governments should consider establishing dedicated housing funds or risk-sharing facilities to de-risk affordable housing investments. These measures, supported by regional cooperation and capacity-building programs, can create an enabling environment for real estate portfolio valuation to effectively drive funding access and scale up affordable housing delivery across the continent ^[37].

5. Conclusion and Recommendations

This paper explored the role of real estate portfolio valuation techniques in unlocking funding for affordable housing in Africa. It highlighted the diverse traditional and modern valuation methods that are vital in accurately assessing property values, such as the Sales Comparison Approach, the Cost Approach, and Income Capitalization Approach. Modern techniques like Automated Valuation Models (AVMs) and GIS-based valuations were discussed for their potential to enhance the accuracy and efficiency of property assessments. We also examined the significance of real estate portfolio diversification in attracting diverse investors and mitigating financial risks associated with affordable housing projects. Furthermore, we considered the challenges

presented by Africa's unique regulatory, institutional, and market barriers and their impact on the real estate valuation process.

The paper concluded that unlocking funding for affordable housing through real estate portfolio valuation is feasible, provided the appropriate mechanisms are put in place. Real estate valuation can help secure the necessary capital from both private and public sources by ensuring transparent and reliable assessments. However, this requires overcoming significant barriers such as insufficient data, weak legal frameworks, and fragmented markets. The potential for unlocking funding through real estate portfolio valuation is considerable if these challenges are addressed.

Despite the considerable potential for real estate portfolio valuation to unlock funding for affordable housing, several challenges remain. The lack of adequate infrastructure in many African nations, particularly in rural and peri-urban areas, impedes the development of comprehensive property databases and accurate valuations. Political instability and inconsistent regulatory frameworks further complicate efforts to create a reliable real estate market. These challenges lead to delays in development, increased costs, and reduced investor confidence. Moreover, the absence of transparent and standardized data makes it difficult for investors to assess risks and determine the true value of properties. As a result, accessing long-term investment remains a complex task, as investors are often reluctant to commit to projects that are perceived as uncertain or unprofitable.

Securing funding for affordable housing in Africa also faces the challenge of a mismatch between the scale of the housing need and the available investment capital. While there is considerable interest from investors in the real estate sector, the financing required for large-scale affordable housing projects often exceeds available resources. Additionally, many investors seek high returns, which may not align with the modest returns typically associated with affordable housing development. Consequently, unlocking funding requires innovative solutions that balance the need for capital with the financial realities of affordable housing investments. Future research should focus on developing tailored real estate valuation methods that better account for the unique characteristics of African markets. These markets often feature informal land ownership systems, fluctuating property values, and limited access to reliable data. Researchers should explore how these factors can be incorporated into valuation models to provide more accurate property assessments. Additionally, studies on the integration of technology, such as big data analytics and AI-driven valuation models, can improve the efficiency and accuracy of property appraisals across the continent.

For practitioners, it is essential to adopt strategies that enhance the financial viability of affordable housing projects. Policymakers should prioritize legal and regulatory reforms that streamline land registration, improve property rights security, and standardize real estate valuation practices. Governments could also offer targeted fiscal incentives such as tax credits and reduced land costs to attract private investors. Developers should explore innovative financing models, including public-private partnerships and impact investing, to diversify funding sources and mitigate risks. By creating an enabling environment for both local and international investors, Africa can unlock the full potential of its real estate markets to address the continent's affordable

housing crisis.

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