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Examining the Relationship between Housing Satisfaction and Post-Occupancy Modifications in Owerri Metropolis

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ABSTRACT

This study explores the relationship between housing satisfaction and post-occupancy modifications (POMs) in Owerri Metropolis, Nigeria. Housing satisfaction influences residential stability, yet dissatisfaction often leads to modifications ranging from aesthetic updates to structural changes. Despite the widespread occurrence of POMs, their link to housing dissatisfaction remains underexplored. A survey of 30 residents (27 responses) assessed housing satisfaction and modification patterns. Findings indicate that while most residents (22 of 26) are satisfied with their housing, 69% (18 respondents) have made modifications, primarily aesthetic (15 respondents) and functional (12 respondents), to address design inadequacies. The study underscores the need for flexible housing designs to enhance satisfaction and reduce modification frequency, recommending adaptable features in future developments.

Keywords: Housing satisfaction, post-occupancy modifications, residential buildings, Owerri metropolis, and user behaviour.

INTRODUCTION

Housing satisfaction, defined as residents' contentment with their living conditions, plays a vital role in urban housing, influencing overall well-being, residential stability, and community cohesion. High levels of satisfaction often lead to sustained housing use, while dissatisfaction can trigger modifications or relocation. Post-occupancy modifications (POMs) are one way residents address dissatisfaction by altering their living spaces to meet personal needs. These changes, ranging from minor aesthetic adjustments to significant structural alterations, reveal insights into both the original housing design and the evolving requirements of residents (Obi et al., 2023). POMs are prevalent in Nigerian housing estates, particularly in public and low-income housing, where designs may not adequately account for the diverse needs of occupants. These modifications often highlight gaps in the planning and design processes of such housing units. In Owerri, the capital city of Imo State, southeastern Nigeria, rapid urbanization has led to significant housing demand. However, the designs of many housing estates in the city necessitate frequent post-occupancy changes, impacting aesthetics, functionality, and sustainability (Chukwuma-Uchegbu, 2020).

Despite the well-documented significance of housing satisfaction and its impact on post-occupancy modifications (POMs), research on the direct interplay between these factors remains scarce. Most existing studies focus either on housing satisfaction or on the nature of modifications in isolation, failing to examine how dissatisfaction drives specific types and extents of modifications. This gap is particularly pronounced in Owerri, where rapid urbanization and frequent POMs

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highlight critical shortcomings in housing design and policy. The lack of empirical studies in this context limits a comprehensive understanding of residents' adaptive responses and the broader implications for sustainable urban housing (Obi et al., 2023).

This study contributes to urban housing policies and design practices by examining the relationship between housing satisfaction and POMs in Owerri. By analyzing how dissatisfaction drives post-occupancy changes, the findings can inform more inclusive housing designs that anticipate residents' needs, thereby reducing the frequency and scale of modifications. Policymakers and urban planners will gain insights into designing housing that minimizes dissatisfaction and promotes long-term satisfaction among occupants. Furthermore, this research emphasizes the importance of sustainable housing development by addressing how design practices can accommodate future needs. Reducing the need for frequent modifications not only lowers the environmental and economic costs but also enhances the longevity and sustainability of housing developments. By focusing on the case of Owerri, this study provides actionable recommendations for improving urban housing outcomes while advancing sustainable practices in housing design and development.

STUDY AREA

Owerri Metropolis, the capital of Imo State in southeastern Nigeria, serves as the focal point of this study. The city has experienced rapid urbanization, leading to a significant demand for housing, particularly for low- and middle-income populations. This urban expansion has resulted in the development of various housing estates, including the Aladinma Housing Estate, Federal Housing Estate Egbeada, Trans-Egbu Housing Estate, and World Bank Housing Estate. These estates were initially designed with standardized layouts intended to accommodate the housing needs of the populace. However, over time, residents have undertaken numerous post-occupancy modifications to adapt these spaces to their personal preferences and requirements. Such modifications have notably impacted the aesthetic layout and functionality of these housing estates, often leading to unauthorized and poorly planned alterations that detract from the original design intentions. This phenomenon underscores the necessity for more flexible and user-responsive housing designs that can accommodate individual needs without compromising the overall estate aesthetics and functionality.

The prevalence of post-occupancy modifications in Owerri's housing estates highlights a critical gap between the original housing designs and the evolving needs of residents. Studies have shown that these modifications are not merely superficial changes but often involve significant structural alterations aimed at improving living conditions. This trend suggests that the initial design and construction phases may not have adequately considered the socio-cultural and economic dynamics of the target population. Consequently, there is a pressing need for housing policies and design practices that are more attuned to the realities of the end-users, ensuring that housing developments are both functional and adaptable over time.

Furthermore, the impact of these modifications extends beyond individual households, affecting the broader urban landscape and community well-being. Unauthorized alterations can lead to issues such as overcrowding, strain on existing

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infrastructure, and a decline in environmental quality. Therefore, understanding the motivations behind post-occupancy modifications and their implications is essential for urban planners and policymakers. By addressing these challenges, it is possible to develop sustainable housing solutions that enhance resident satisfaction while maintaining the integrity of urban planning objectives.

METHODOLOGY

A quantitative survey was conducted, targeting 30 residences within the study area, yielding 27 completed responses—a 90% response rate. This high response rate enhances the reliability of the findings by reducing nonresponse bias and increasing the representativeness of the sample (Holbrook et al., 2007). The sample size, though modest, is justified as it aligns with studies exploring specific phenomena in detail, where smaller, well-defined samples can yield meaningful insights (Memon et al., 2020). Data were analyzed using descriptive statistics to summarize housing satisfaction levels and the frequency of post-occupancy modifications, while inferential statistics (e.g., chi-square tests) were employed to examine relationships between housing satisfaction and modification patterns. These methods enable the identification of statistically significant associations, providing a robust basis for interpreting trends within the dataset. A purposive sampling technique was adopted to ensure the inclusion of residents from diverse housing types, ownership statuses, and modification experiences. This non-random approach was appropriate given the study's objective of capturing variations in post-occupancy modifications and housing satisfaction across different residential contexts. The structured questionnaire, a widely used tool in quantitative research, facilitated standardized data collection, allowing for objective comparison and statistical analysis (Creswell & Creswell, 2017).

RESULTS & DISCUSSION

Housing Type Distribution and Ownership

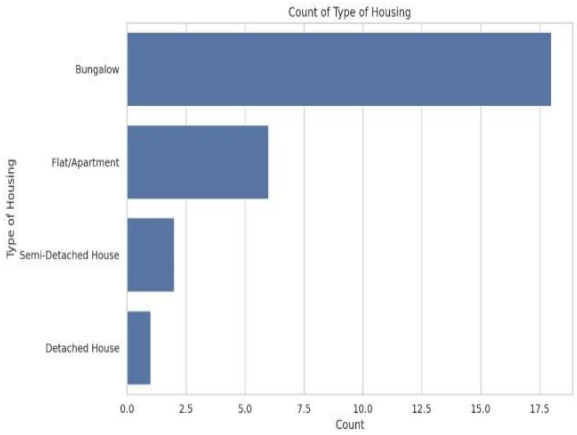

Figure 1: The distribution of housing types

Figure 1 presents the distribution of housing types in the study area, encompassing bungalows, flats/apartments, semi-detached houses, and detached houses, with counts ranging from 0 to 17.5. The diversity in housing types reflects the varied accommodation patterns within the area, which have implications for affordable housing strategies. If flats/apartments dominate, this suggests a higher concentration of urban low-income residents, reinforcing the need for targeted housing interventions. Conversely, a prevalence of detached houses may indicate higher-income settlements with different housing concerns.

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Housing Stability and Satisfaction

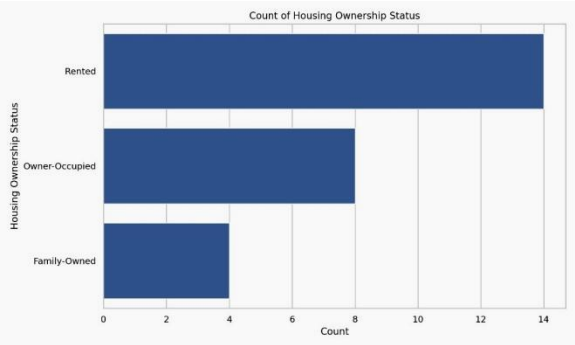

Figure 2: The Categorizing of housing types.

Further analysis in Figure 2 categorizes housing into rented, owner-occupied, and family-owned, revealing a significant impact on housing stability. Rented accommodations, which often correlate with higher mobility, may contribute to instability and stress—factors linked to substance misuse among youths. In contrast, owner-occupied and family-owned homes offer more permanence, fostering mental resilience and stability. These findings underscore the need for policies that facilitate home ownership among low-income groups, thereby reducing housing-related stress and potential social risks.

Housing Stability and Satisfaction

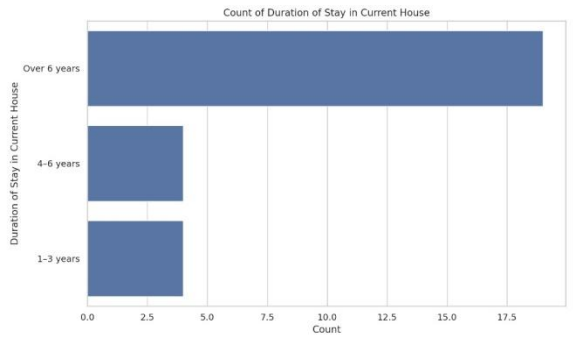

Figure 3: The duration of stay in current housing.

Figure 3 illustrates the duration of residence, segmented into over 6 years, 4–6 years, and 1–3 years. Longer stays are often associated with greater community integration and social stability, while shorter durations suggest instability, often caused by economic challenges or dissatisfaction with housing conditions. This aligns with Figure 4, where housing location satisfaction is examined. A majority of respondents (22 out of 26) expressed satisfaction, but the presence of four dissatisfied respondents signals areas for improvement in location-related factors such as accessibility, security, and environmental quality.

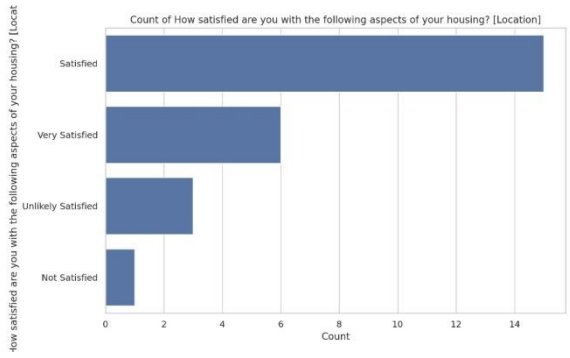

Figure 4: Housing Location Satisfaction.

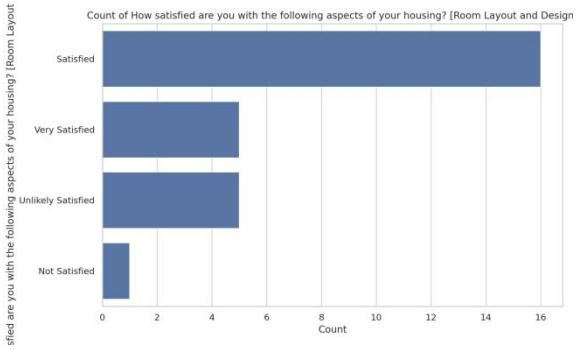

Figure 5: Room Layout and Design Satisfaction.

Similarly, Figure 5 explores satisfaction with room layout and design, where 18 respondents expressed positive feedback, yet

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a notable portion (8 respondents) reported dissatisfaction. This suggests that while existing housing designs meet general expectations, certain elements require refinements to align with residents' spatial and functional needs. Addressing these concerns could enhance residential comfort and reduce the likelihood of modifications.

Utility Access and Housing Adequacy

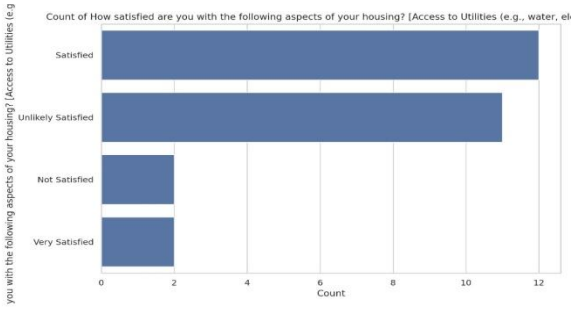

Figure 6: Access to Utilities Satisfaction

Access to utilities, a fundamental component of housing quality, is assessed in Figure 6. While most respondents (18 out of 26) reported satisfaction, a significant minority (8 respondents) experienced challenges related to water supply, electricity, or sanitation. These utility deficits highlight the need for infrastructure upgrades, particularly in areas with recurring supply issues.

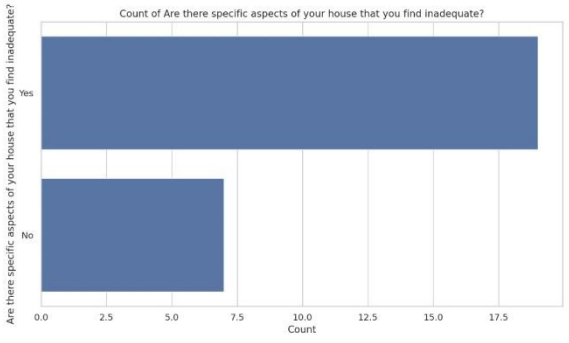

Figure 7: Adequacy of Specific Aspects.

Further examining housing adequacy, Figure 7 reveals that 69% of respondents identified inadequacies in their homes. The specific shortcomings—ranging from ventilation and structural durability to space constraints—justify the prevalence of post-occupancy modifications (POMs), as seen in Figures 8 and 9. A total of 18 respondents (69%) had modified their homes, primarily through aesthetic and functional upgrades rather than major structural alterations. This trend suggests that while housing conditions are generally livable, improvements are often necessary to meet residents' evolving needs.

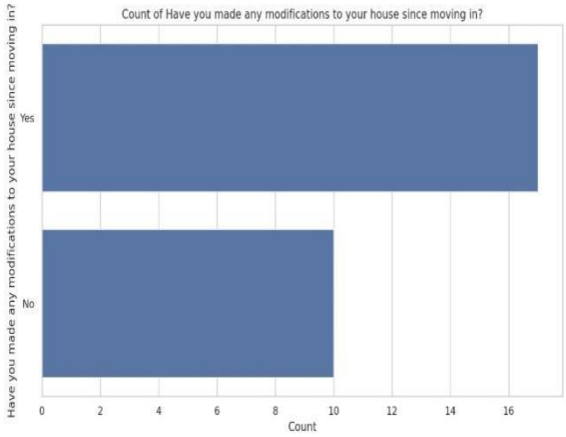

Figure 8: Modifications since Moving In.

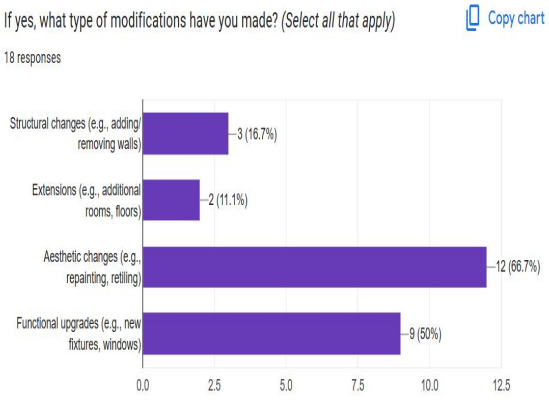

Figure 9: Modifications made.

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Understanding Post-Occupancy Modifications

The motivations behind these modifications are detailed in Figure 10, where functional needs emerged as the dominant driver (18 respondents). This aligns with prior findings on perceived inadequacies, reinforcing the notion that many residents undertake modifications to compensate for design shortcomings rather than purely aesthetic preferences. Notably, only a few respondents (2) cited cultural influences as a factor, suggesting that modifications are primarily necessity-driven rather than rooted in personal or traditional preferences.

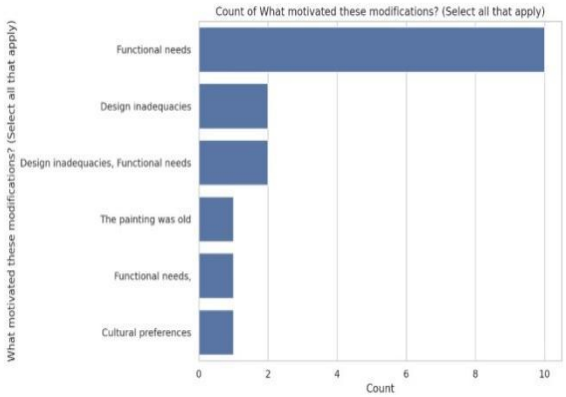

Figure 10: Motivations Behind Modifications.

The interplay between housing satisfaction and modifications reveals a critical link between design adequacy and residents' adaptation strategies. High modification rates indicate gaps in initial housing designs, particularly in addressing functional needs. These findings advocate for proactive housing policies that incorporate resident feedback to improve future developments. Additionally, enhancing access to homeownership and improving housing stability could mitigate stressors that contribute to social issues such as substance misuse.

By integrating these insights, urban planners and policymakers can formulate data-driven interventions that prioritize affordability, sustainability, and long-term housing satisfaction, ultimately fostering more stable and resilient communities.

CONCLUSION

This study explored the modifications made to houses since moving in, focusing on the types of changes, motivations, and distribution of responses among residents. The findings reveal that a significant majority of respondents have made modifications, with aesthetic changes (such as repainting and retiling) and functional upgrades (such as new fixtures and windows) being the most common. Structural changes and extensions were less frequent, indicating that homeowners prioritize enhancing practicality and livability over major alterations.

The study's findings have significant implications for future housing policies and urban planning. The prevalence of home modifications suggests that existing housing designs may not fully meet residents' needs, underscoring the importance of integrating flexibility and adaptability into new housing developments. Housing developers and urban planners should consider strategies that address common functional and design deficiencies while ensuring affordability and sustainability in housing projects.

Based on these insights, the following recommendations are proposed:

1. Policy Enhancement – Housing policies should prioritize resolving common functional and design deficiencies identified by homeowners, ensuring that new housing

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developments align with practical and aesthetic needs.

2. Flexible Housing Design – Developers should incorporate adaptable design features in new housing projects to accommodate evolving needs and preferences.
3. Affordable Aesthetic Improvements – Providing cost-effective options for homeowners to enhance their living spaces, such as subsidized repainting and retiling programs, can improve housing quality.
4. Public Awareness and Education – Launching campaigns to educate homeowners on the benefits of modifications and offering guidance on functional and aesthetic improvements can enhance housing satisfaction.
5. Support Programs – Implementing financial or technical assistance initiatives for home modifications can help homeowners make necessary improvements, fostering long-term housing stability and well-being.

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