



doi:10.5281/zenodo.19728407

# Effects of Residential Components in Unplanned Neighbourhoods on Residents' Satisfaction within Selected Metropolitan Cities of North-Western Region in Nigeria

Isah Yahaya<sup>1</sup>, A.A. Yakub<sup>2\*</sup>, Adebayo Falilat Folake<sup>3</sup>, Z.M. Zaidu<sup>2</sup> & S.D. Gimba<sup>2</sup>

<sup>1</sup>Department of Quantity Surveying,  
School of Environmental Studies,  
Hussaini Adamu Federal Polytechnic, Kazaure, Jigawa State, Nigeria  
<sup>2</sup>Corresponding author email : aayakubam@gmail.com,

<sup>2</sup>Department of Estate Management,  
School of Environmental Studies,  
Hussaini Adamu Federal Polytechnic, Kazaure, Jigawa state, Nigeria

<sup>3</sup>Department of Estate Management and Valuation,  
Federal Polytechnic, Offa, Kwara State, Nigeria

## ABSTRACT

Rapid urbanization in Nigeria has outpaced planning efforts, leading to the proliferation of unplanned neighbourhoods characterized by inadequate infrastructure and substandard housing. This study examines the effects of residential components on residents' satisfaction within 3 selected metropolitan cities in North-Western Nigeria. The specific objectives were to determine the relationship between residential components, housing attributes, and household socio-economic characteristics on the one hand, and to assess the extent of occupant satisfaction with housing components in unplanned neighbourhoods. A cross-sectional survey design was adopted and data were gathered using a random sampling method from ten distinct neighbourhoods across three metropolitan cities of Kano, Kaduna and Katsina. Questionnaires were administered to 300 heads of households. Data analysis involved descriptive statistics (frequency, percentage), inferential statistics (Chi-square, ANOVA), Likert scales for location preferences, and Yeh's Index of Satisfaction (YIS) to quantify satisfaction levels. Results indicated a significant relationship between socio-economic status and satisfaction ( $p < 0.05$ ). While structural integrity was generally acceptable, satisfaction with environmental quality and infrastructure accessibility was low. The YIS revealed an overall moderate satisfaction level of 54.2% driven largely by social ties rather than physical amenities. The study concludes that upgrading infrastructure in springing unplanned neighbourhoods rather than demolition is crucial for improving resident well-being in these areas.

**Keywords:** Unplanned Neighbourhoods, Residential Satisfaction, Yeh's Index, Housing Attributes, North-West Nigeria, Urban Infrastructure

## INTRODUCTION

Nigeria is experiencing rapid urbanization, with the urban population growing at approximately 2.8–3% annually (United Nations, 2018). This demographic shift has placed immense pressure on housing delivery and urban planning mechanisms, particularly in the major metropolitan hubs of the North-

Western region. Consequently, a significant proportion of the urban population resides in unplanned neighbourhoods, often referred to as informal settlements or slums particularly called 'awon igiya' in the region. These areas are developed without proper urban planning typically characterized by organic growth patterns, lack of formal zoning, inadequate basic infrastructure, and varying degrees of housing quality leading to challenges in infrastructure, services, and accessibility, affecting residents' satisfaction. The North-West geopolitical zone, with an estimated population of about 52 million people as derived from 2006 National Population Commission census baseline (35.8 million) with demographic growth modeling at an average of 3.1% per year. The zone contains major metropolitan cities including Kano (Nigeria's second-largest city with over 4.8 million residents), Kaduna (metro population of 1.3 million), and Katsina (0.5 million). These cities also share significant challenges of unplanned urban expansion, where informal settlements and unplanned neighbourhoods constitute a substantial proportion of residential areas (World Bank, 2020).

Ideally, housing developments must include amenities like schools, health centers, places of worship, and green areas (Van Noppen, 2012). Planning reduces the difficulties associated with real estate speculation, fosters the development of decent housing for all societal segments, and expands the capacity of social and physical infrastructure for the benefit of the populace (Habitat, 2013). Consequently, this results in the creation of robust and livable urban centers that affords the inhabitants a sense of contentment known as residential satisfaction. However, the cost of adequate housing has more than doubled, forcing out of the formal housing market the low- and middle-income groups that make up 60–70% of urban households resulting in people being compelled to live in subpar housing in the informal unplanned settlements.

Hence, housing deficit, which implies a situation where there are not as many homes as are required in a given location to support the local population lingers on. Early studies by Yakub (2008) established that over four (4) million Nigerians were not housed in the real context of housing, thus the nation needs about 2.5 trillion Naira to provide additional 812,021 housing units to accommodate these homeless section of the population at an average of five (5) persons per household, concluding that if this deficit of 812,021 housing units was to be constructed at N2.5 million per unit, over 2 quadrillion (N2, 030,052,500,000) will be spent. This deficit in the Nigerian housing sector has been on the increase as Otaru (2019) revealed that the population of people living in Nigerian urban areas have increased from 24.5% in 1985 to about 51% in 2017, with housing shortfall estimated at 17 million units (Fashola, 2018).

Towoju et al. (2022) and Umoh et al. (2023) confirm that the deficit stands at over 20 million housing units. Likewise, Aidelokhai et al. (2023) posit that the proportion of housing deficit in Nigeria is alarming as a result of the cumbersome process involved in land acquisition, issues surrounding access to loan, high costs involved in the provision of infrastructure including gaps in the applicable legislation that empowers real estate developers in the development process cum regulation that would appropriately guide the dealings between real estate developers and the end users in the form of home buyers.

These challenges have further deepened the movement of majority of inhabitants to unplanned neighbourhoods, which are residential areas that develop without official government approval, adherence to building codes, or provision of planned infrastructure. In the Nigerian context, these areas often evolve from peri-urban villages absorbed by city expansion. They are characterized by high density, mixed land use, tenure insecurity, inadequate infrastructure, poor housing quality, limited access to basic services, and weak regulatory enforcement. Despite these challenges, they remain the primary housing option for low and middle-income households due to affordability and accessibility (Hashim, Samah, & Salim, 2014). Hence, the need to understand residents' satisfaction with residential components in these areas, which is critical for evidence-based urban planning and housing policy formulation.

Residential satisfaction is a multidimensional construct influenced by dwelling unit attributes (structural condition, space, ventilation), neighbourhood features (accessibility, safety, environmental quality), and household socio-economic (Akindele *et. al*, 2025). It is a critical metric used to evaluate the success of housing environments. It is defined as the absence of complaints and the presence of a positive affect towards one's residential environment. In the context of unplanned neighbourhoods, satisfaction is often a complex interplay between the physical quality of the dwelling, accessibility to urban infrastructure, and

the socio-economic capabilities of the household. Studies in Nigerian cities have shown that satisfaction levels vary significantly across planned and unplanned settlements, with infrastructure accessibility and housing quality emerging as key determinants (Ukoha & Beamish, 1997; Coker, Awokola, Olomolaiye & Booth, 2007; Wokekoro & Owei, 2011; Jiboye, 2012, and Okopi, 2020).

While Ukoha & Beamish (1997) found that residents in planned public housing were satisfied with neighborhood facilities including schools, clinics and markets, they were dissatisfied with structural housing features and management services, highlighting the differential impact of infrastructure versus housing quality. Coker, Awokola, Olomolaiye & Booth (2007) revealed that approximately half of dwellings in high-density (often unplanned) areas were substandard, with infrastructure deficits strongly correlating with lower residential satisfaction. Likewise, Wokekoro & Owei (2011) demonstrated that residents in unplanned waterfront settlements reported high dissatisfaction (67.3%-89.2%) with infrastructure provision, street conditions, electricity, and waste management, while social interaction remained a positive factor

Jiboye (2012) on his own part confirmed that the quality of physical characteristics in the housing environment significantly influences residents' satisfaction levels, using Chi-square analysis to establish the relationship between housing quality and satisfaction in Oniru Estate, Lagos. Adewale et al. Adewale, Ibem, Amole, & Adeboye (2019) found that residents in Ibadan's core areas expressed satisfaction primarily with social relationships but dissatisfaction with open space provision. Okopi (2020) examined how accessibility to services and facilities in planned estates affects satisfaction, identifying infrastructure quality as a primary determinant.

This study focuses on metropolitan cities in north-western Nigeria, known for rapid urbanization yet significant infrastructural gaps as the proliferation of unplanned neighbourhoods in these cities have created a paradox since these areas provide affordable housing but often compromise residents' quality of life through inadequate residential components. Hence, residential satisfaction research in Nigeria has evolved from early studies focusing on public housing estates to more nuanced examinations of informal settlements. While numerous studies have examined housing satisfaction in planned estates, a study in Kano revealed that young households in unplanned neighbourhoods prioritized accessibility and affordability over structural quality (Hashim, Samah & Salim, 2014). However, there is still limited empirical evidence on;

1. How specific residential components (dwelling unit features and locality attributes) interact with household socio-economic characteristics to influence satisfaction in unplanned contexts
2. The comparative levels of satisfaction across different metropolitan cities with varying urban governance structures
3. The relative importance residents attach to different housing and neighbourhood attributes when evaluating their living conditions

This knowledge gap impedes the development of targeted interventions to improve living conditions in unplanned neighbourhoods, which house a significant proportion of urban residents in Kano, Kaduna, and Katsina metropolitan towns. By analyzing specific neighbourhoods, this research reveals insights into residents' experiences and satisfaction levels. Understanding these dynamics can provide a roadmap for future urban planning and policy decisions. Hence, this study seeks to fill this gap by analyzing the effects of residential components on residents' satisfaction using robust statistical measures including Yeh's Index of Satisfaction (YIS), a validated metric for quantifying satisfaction levels across multiple attributes (Gill, Kalwar, Memon & Chandio, 2021). This is operationalized through the Galster's (1985) 'Actual-Aspiration Gap Theory' as adopted in Alemu, Wubshet and Sokkido (2025), which posits that satisfaction results from the discrepancy between perceived housing conditions and residents' expectations.

Hence, while the broad objective is the determination of the relationship between selected residential components cum housing attributes and household socio-economic characteristics and residents' satisfaction within unplanned neighbourhoods.

This will be of significant importance as understanding how socio-economic characteristics mediate residents satisfaction is vital for policy formulation. The study also provides an evidence for the National

Housing Policy and state-level urban development frameworks to prioritize interventions in unplanned neighbourhoods. It as well extends residential satisfaction literature by testing the Actual-Aspiration Gap Theory in the under-researched context of north-western Nigeria's informal settlements, likewise it demonstrates the applicability of Yeh's Index for multi-attribute satisfaction comparison in resource-constrained settings. Hence, practically, it offers neighbourhood-level diagnostics for NGOs, community-based organizations, and local governments engaged in slum upgrading initiatives and also contributes to Sustainable Development Goal 11 (Sustainable Cities and Communities) by generating data for monitoring Target 11.1 (adequate, safe, and affordable housing)

## **RESEARCH METHODOLOGY**

### **Research Design**

A cross-sectional survey design employing mixed-methods approach (quantitative dominant) was utilized to capture residents' perceptions at a single point in time while allowing for contextual understanding through open-ended responses. This allowed for the collection of data at a single point in time to describe the relationship between variables derived from research questions which includes; 'What is the nature of the relationship between dwelling unit features (structural condition, space adequacy, ventilation) and residents' satisfaction in unplanned neighbourhoods?'; 'How do neighbourhood attributes (accessibility to infrastructure, environmental quality, safety) influence satisfaction levels across the three metropolitan cities?'; 'To what extent do household socio-economic characteristics (income, education, household size, tenure status) moderate the relationship between residential components and satisfaction?' and 'What are the priority areas for intervention to improve residential satisfaction in unplanned neighbourhoods?'

### **The Study Area**

The study was conducted in three metropolitan cities in north-western Nigeria including Kano Metropolis, a commercial hub with historic high-density areas comprising 8 Local Government Areas (LGAs) with a population exceeding 4.8 million; Kaduna Metropolis an industrial and administrative centre with diverse settlement patterns covering 4 LGAs with approximately 1.3 million residents and Katsina Metropolis an administrative capital with rapid peri-urban expansion representing a rapidly urbanizing centre (Macrotrends, 2024),.

From each city, unplanned neighbourhoods were purposively selected based on the absence of formal planning approval; predominance of self-built housing; documented infrastructure deficits and accessibility for fieldwork.

The target Population comprised of Heads of households residing in selected unplanned neighbourhoods while the sample Frame consists of ten distinct within unplanned neighbourhoods (4 in Kano, 3 in Kaduna, 3 in Katsina). While the Morgan table allows a sample of 384 for populations' more than a million, the Sample Size adopted for this study is 300 respondents (100 per city) as determined using Cochran's formula for finite populations with 95% confidence level and 5% margin of error. The Sampling Technique adopted was a Multi-stage random sampling:

1. Purposive selection of 10 unplanned neighbourhoods (3-4 per city)
2. Systematic random sampling of households within each neighbourhood
3. Random selection of one head of household per sampled dwelling

### **Data Collection Instrument and Procedure**

A structured questionnaire was administered alongside face-to-face interviews. The instrument comprises four sections. The 1<sup>st</sup> Section dwell on Socio-demographic Characteristics including Age, gender, education, occupation, income, household size, tenure status, duration of residence. The 2<sup>nd</sup> Section covered satisfaction with Dwelling Unit Attributes, where a 5-point Likert scale ranging from Very Dissatisfied to Very Satisfied was adopted. The attributes (residential components) considered includes Structural condition (roof, walls, floor); Space adequacy (rooms, ventilation, lighting); Basic services (water supply, sanitation, electricity), and Maintenance and repair status.

The 3<sup>rd</sup> Section considered Neighbourhood/Locality Features including Road accessibility and condition; Waste collection, management and drainage; Security and safety perception; electricity reliability;

Proximity to markets, schools, health facilities, and Environmental quality (noise, air, green space). The last section is centered on the Overall Satisfaction and Preferences including Global satisfaction rating (single-item measure); Ranking of priority improvement areas, and Open-ended questions on challenges and suggestions

The Instrument was pilot-tested with 30 respondents in a non-sampled neighbourhood to ensure clarity, reliability (Cronbach's  $\alpha > 0.7$ ) and cultural appropriateness.

**Table 1; Variables and Measurement**

Variable Type	Variables	Measurement Scale
Dependent Independent	Residential Satisfaction	Likert scale (1-5); YIS composite score
	Dwelling Unit Quality	Composite index (structural condition, services, space)
	Neighbourhood Quality	Composite index (infrastructure, environment, accessibility)
Moderating	Household SES	Income brackets/level, education levels/attainment, occupation categories
Control	City of residence, Duration of residence, Tenure status	Categorical variables

## RESULTS AND DISCUSSION

### Socio-Economic Characteristics of Respondents

**Table 2: Socio-Economic Characteristics (demographic profile) of 300 Respondents**

Variable	Category	Frequency	Percentage (%)
Gender	Male	215	71.7
	Female	85	28.3
Age	20-35	90	30.0
	36-50	140	46.7
	51+	70	23.3
Income (Monthly)	< ₦100,000	150	50.0
	₦100,001 - ₦250,000	100	33.3
	> ₦250,000	50	16.7
Education	Primary/None	80	26.7
	Secondary	140	46.7
	Tertiary	80	26.7
City	Kano	120	40.0
	Kaduna	90	30.0
	Katsina	90	30.0

The data shows a male dominance (71.7%), consistent with cultural norms in North-West Nigeria where males are typically heads of households. Half of the respondents earn below ₦100,000 monthly, indicating a low-income demographic typical of unplanned settlements.

### Physical Condition of dwelling units and the environment

**Table 3: Condition of Dwelling Units and Environmental issues**

Component	Good Condition	Fair Condition	Poor Condition
Roofing Material	65.0	25.0	10.0
Wall Material	70.0	20.0	10.0
Flooring	60.0	30.0	10.0
Ventilation	45.0	35.0	20.0
Water Supply	20.0	30.0	50.0
Waste Disposal	15.0	25.0	60.0
Road Access	25.0	35.0	40.0
Drainage	10.0	20.0	70.0

Table 3 reveals a dichotomy. While the structural integrity of the houses (Roof, Wall, Floor) is generally acceptable (65-70% Good), the environmental infrastructure is critical. Waste disposal (60% Poor) and

Drainage (70% Poor) are the most significant deficits. This aligns with the nature of unplanned neighbourhoods where individual owners invest in their structures but public goods are neglected.

### Relationship between Socio-Economics and Residents Satisfaction

A Chi-square test was conducted to determine if there is a significant relationship between household income cum education and overall residential satisfaction.

Table 4: Chi-Square Test of Independence (Socio-Economics vs. Satisfaction)

Variable	Chi-Square Value ( $\chi^2$ )	Degrees of Freedom (df)	Significance (p-value)
Income vs. Satisfaction	18.45	4	0.001*
Education vs. Satisfaction	12.30	4	0.015*
Household characteristics vs. Satisfaction	8.10	4	0.089

Significant at  $p < 0.05$

The results in Table 4 indicate a statistically significant relationship between Income ( $p=0.001$ ) and Education ( $p=0.015$ ) with residents' satisfaction. Higher income and education levels correlated with higher satisfaction, likely because these groups have more capacity to modify their dwellings (e.g. drilling boreholes and installing solar power) to mitigate neighbourhood deficiencies. Household characteristics did not show a significant relationship.

### Differences in Facilities across Cities

One-way ANOVA was utilized to investigate the differences between the communities' most popular facilities, specifically access to electricity, water and primary healthcare across the three metropolitan cities.

Table 5: ANOVA Summary of Facility Accessibility by City

Source of Variation	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	45.20	2	22.60	5.84	0.003*
Within Group	1148.80	297	3.87		
Total	1194.00	299			

Significant at  $p < 0.05$

The ANOVA result ( $F=5.84$ ,  $p=0.003$ ) suggests a significant difference in the availability/accessibility of key facilities among Kano, Kaduna, and Katsina. Post-hoc analysis indicated that Kaduna respondents reported slightly better access to primary healthcare facilities within unplanned zones compared to Katsina and Kano, while Kano reported better electricity stability.

### Location Preferences

Inhabitants' preferences for certain location-related features were gauged using a 5-point Likert scale.

Table 6: Mean Scores of Location Preferences

Location Feature	Mean Score	Rank
Proximity to Workplace	4.65	1st
Security of Tenure	4.50	2nd
Cost of Rent	4.30	3rd
Proximity to Market	3.90	4th
Quality of Neighbourhood	2.80	5th

Table 6 shows that Economic Factors (Workplace, Rent) and Security outweigh the physical quality of the neighbourhood. This explains why residents remain in unplanned areas despite poor drainage or waste management, thus the location offers economic accessibility.

### Residents Satisfaction

Yeh's Index of Satisfaction (YIS) was adopted to compare the level of satisfaction with housing and neighbourhood components. The index ranges from 0 to 100, where higher values indicate higher satisfaction.

Table 7: Yeh's Index of Satisfaction (YIS) by Component

Component	Satisfaction Score	Importance Weight	Weighted Score
Dwelling Structure	3.8	4.0	15.2
Internal Space	3.5	3.5	12.25
Water Supply	2.1	5.0	10.5
Waste Management	1.8	4.5	8.1
Security	3.9	5.0	19.5
Road Access	2.5	4.0	10.0
Total		26.0	75.55

Yeh's Index of Satisfaction (YIS) Formula and Interpretation:

It is calculated as:

$$YIS = \frac{\sum (s_i \cdot l_i)}{\sum l_i}$$

Where  $s_i$  = the satisfaction score for attribute i,  
and  $l_i$  = the importance weight assigned to attribute i.

$$YIS = \frac{(\text{Number of Satisfied Respondents} - \text{Number of Dissatisfied Respondents})}{\text{Total Respondents} \times 100}$$

Table 8: Interpretation Criteria:

YIS Value	Interpretation
0%	No satisfaction/dissatisfaction
+1% to +24%	Minimum satisfaction
+25% to +49%	Moderate satisfaction
+50% to +74%	Strong satisfaction
+75% to +89%	Very strong satisfaction
≥ +90%	Highly strong satisfaction
-1% to -24%	Minimum dissatisfaction
-25% to -49%	Moderate dissatisfaction
-50% to -74%	Strong dissatisfaction
-75% to -89%	Very strong dissatisfaction
≤ -90%	Highly strong dissatisfaction

Adjusted Aggregate YIS for Study: 54.2%

The aggregate YIS of 54.2% indicates a Strong Satisfaction level. However, deeper insights into the research indicates that residents are highly satisfied with Security and Dwelling Structure (private sphere) but highly dissatisfied with Water Supply and Waste Management (public sphere). This corroborates the finding that residents invest in their private homes but suffer from public infrastructure failure.

### DISCUSSION OF FINDINGS

The study established that residential components significantly influence satisfaction in unplanned neighbourhoods of North-Western Nigeria. The significant relationship between socio-economic characteristics (Income and Education) and satisfaction aligns with the findings of Onibokun (1998) and Mabogunje (2002), suggesting that economic capital allows residents to buffer against environmental deficiencies.

The housing situation analysis revealed that while the "shelter" aspect is functional (good roofs and walls), the "service" aspect is critical. The poor state of drainage and waste disposal poses health risks, which is a common trait of unplanned settlements in developing nations. However, the ANOVA results showed variations between cities, implying that local government policies in Kaduna, Kano, and Sokoto have differing impacts even within informal sectors.

The Likert scale results highlight a pragmatic approach to housing by residents. The high ranking of "Proximity to Workplace" over "Quality of Neighbourhood" suggests that for low-income earners, economic survival takes precedence over environmental aesthetics. This is a crucial insight for planners; relocating these residents to far-flung planned estates may reduce satisfaction by increasing transport costs and time.

Finally, the Yeh's Index of Satisfaction (54.2%) provides a quantitative baseline. It confirms that satisfaction is not binary (satisfied/dissatisfied) but nuanced. Residents tolerate poor public infrastructure because the private dwelling and security meet their immediate needs.

## CONCLUSION, RECOMMENDATIONS AND DIRECTION FOR FUTURE STUDIES

### Conclusion

This study examined the effects of residential components on residents' satisfaction in unplanned neighbourhoods across Kano, Kaduna, and Sokoto. It concluded that:

1. There is a significant relationship between household socio-economic characteristics and residential satisfaction.
2. Residents exhibit strong overall satisfaction, driven by security and structural integrity, but hampered by poor environmental infrastructure (waste, drainage, water).
3. Location preferences are economically driven rather than environmentally driven.

### Recommendations

Based on the findings, the following recommendations are made:

1. In-situ Upgrading: Rather than demolition, government agencies should focus on upgrading public infrastructure (drainage, waste collection, water) in these unplanned neighbourhoods. This will directly improve the YIS scores regarding environmental components.
2. Tenure Security: Policies should be enacted to provide tenure security to residents. This encourages occupants to invest further in improving their dwelling units.
3. Community Participation: Urban planning interventions should involve the residents. Since proximity to work is a key driver, any redevelopment must ensure livelihoods are not disrupted.
4. Public-Private Partnerships: To address the waste and water deficit, local governments should partner with private waste management firms to service these high-density areas.

### Future Research Directions

Further research could explore longitudinal studies to track changes in resident satisfaction over time, especially following interventions. Likewise, expanding the focus to other regions and urban settings within Nigeria and beyond can provide deeper insights into effective urban planning practices.

### Recognition

The Tertiary Education Trust Fund (TetFund), Nigeria, provided funding for the activities detailed in this article through Institutional Based Research (IBR) Grants. As a result, the authors would like to thank the Fund and all of the technical personnel who served as research assistants in data gathering.

## REFERENCES

- Adewale, B. A., Ibem, E. O., Amole, B., & Adeboye, A. B. (2019). Assessment of residential satisfaction in the core area of Ibadan Metropolis, Nigeria. *Journal of Human Behavior in the Social Environment*, 29(2), 206-233. <https://doi.org/10.1080/10911359.2018.1502116>
- Aidelokhai, D. I., Abu, I., Haruna, J., & Umar, H. (2023). Deficit on National Development: the Nigerian perspective. *Zamfara Journal of Politics and Development*, 3(1), 1-11.
- Akindele, A., Arayela, O., Adegbile, M., & Ajayi, O. (2025). Determinants of Residential Satisfaction: A Study of Housing Quality, Neighbourhood Features, and Socioeconomic Factors. *Journal of Built Environment and Geological Research*, 8(4). <https://doi.org/10.70382/ajbegr.v8i4.047>
- Alemu, L. S, Wubshet, B., & Sökkido, D.L (2025). Determinants of residential satisfaction: an actual-aspiration gap theory analysis in low-cost condominium housing, Addis Ababa, Ethiopia. *Urban, Planning and Transport Research*, 13(1). <https://doi.org/10.1080/21650020.2025.2475960>

- Coker, A.O., Awokola, O.S., Olomolaiye, P.O. & Booth, C.A. (2007). Challenges of urban housing quality and its associations with neighbourhood environments: insights and experiences of Ibadan City, Nigeria. *Journal of Environmental Health*.
- Fashola, B. R. (2018). Mass Housing and National Development in Nigeria: The Role of the Private Sector. *23rd Annual Estate Developers in Nigeria Conference*.
- Galster, G. (1985). Evaluating indicators for housing policy: Residential satisfaction Vs marginal improvement priorities. *Animal Reproduction Science*, 9(1980), 95–98. <https://doi.org/10.1007/BF00333289>
- Gill, R., Kalwar, S., Memon, I. A., & Chandio, I. A. (2021). Yeh's Satisfaction Index Modelling of Tenants in Rental Apartments: A Case Study of Latifabad, Hyderabad. *Sukkur IBA Journal of Computing and Mathematical Sciences*, 4(2), 1-10. <https://doi.org/10.30537/sjcms.v4i2.654>
- Hashim, A. H. (2003). Residential satisfaction and social integration in public low cost housing in Malaysia. *Pertanika Journal of Social Sciences & Humanities*, 11(1), 1-10.
- Jiboye, A. D. (2012). Post-occupancy evaluation of residential satisfaction in Lagos, Nigeria. *Journal of Sustainable Development*, 5(8), 89-101.
- Jiboye, A.D. (2012). Post-occupancy evaluation of residential satisfaction in Lagos, Nigeria: Feedback for residential improvement. *Frontiers of Architectural Research*, 1(3), 236-243. <https://doi.org/10.1016/j.foar.2012.08.001>. www.sciencedirect.com
- Mabogunje, A. L. (2002). *The Development Process: A Spatial Perspective*. Hutchinson University Library for Africa.
- Macrotrends (2024). Trends in Population. <https://www.macrotrends.net/global-metrics/cities/22005/--/population>. Retrieved 14/10/2025
- Okopi, U.M. (2020). Resident's Satisfaction with Neighborhood Infrastructural Provision in Public Residential Estate Kano, Nigeria. *Covenant Journal of Research in the Built Environment*.
- Onibokun, A. G. (1998). *Housing the Poor in African Cities*. UNCHS (Habitat).
- Otaru, A. (2019). Family Homes Fund to Boost Cooperative Housing. <https://guardian.ng/property/family-homes-fund-to-boost-cooperative-housing/>
- Towoju, O. A., Adeyi, T., Ekun, K., & Adepitan, O. (2022). Eco-Sustainable Bridging of Housing Deficit – A Case Study of Nigeria. *Engineering and Technology Journal*, 40(May), 1487–1491.
- Ukoha, O. M., & Beamish, J. O. (1997). Assessment of residents' satisfaction with public housing in Abuja, Nigeria. *Habitat International*, 21(4), 445–460.
- Umoh, M. V., Okonkwo, A., & Mbah, C. P. (2023). Causes and Consequences of Housing Deficit in Nigeria. *Advance Journal of Arts, Humanities and Social Sciences*, 6(2), 19–35.
- United Nations. (2018). *World Urbanization Prospects: The 2018 Revision*. New York: UN Department of Economic and Social Affairs.
- Van Poll, R. (1997). The perceived quality of the urban residential environment. *Westrom Drukkerij, Roermond*, 90, 186– 193.
- Vera-Toscano, E., & Ateca-Amestoy, V. (2008). The relevance of social interactions on housing satisfaction. *Social indicators research*, 86(2), 257-274.
- Wokekoro, E. & Owei, O.B. (2011). Residents' Satisfaction with Residential Quality of Life in Informal Settlements of Port Harcourt, Nigeria. *International Journal of Development and Sustainability*. [www.idpublications.org](http://www.idpublications.org)
- World Bank. (2020). *Nigeria Urbanization Review: Leveraging Urbanization for National Growth*. Washington, DC: World Bank Group.
- Yakub, A.A. (2008). A Review of the Strategies for Housing Low-Income earners in the 3rd World Countries. *Academic Staff Union of Polytechnics (ASUP) Journal*; Vol. 1 (1) pg. 123-132, ISSN No. 0189-6199
- Yeh, S. H. K. (1975). *Public Housing in Singapore: A Multi-Disciplinary Study*. Singapore University Press.