

Comparison of Satisfaction with Residential Components between Previous and Current Unplanned Neighbourhoods among Young Households in Kano, Nigeria

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Abstract

Studies on residential satisfaction in unplanned neighbourhoods have focused on social interactions and overall satisfaction with housing and neighbourhood as well as the decision to move. Few studies have focused on the comparison of satisfaction with residential components between previous and current unplanned neighbourhoods. This study compares satisfaction with residential components between previous and current unplanned neighbourhoods among young households in Kano Metropolitan, Nigeria with a view to provide a database to the policy makers on the housing situations in unplanned neighbourhoods. Data for this study was obtained from 364 randomly selected heads of young households in unplanned neighbourhoods in Kano city using self-administered questionnaire survey. Yeh's Index of satisfaction (YIS) was used in the data analyses to compare the level of satisfaction with residential components (housing and neighbourhood) between the previous and current neighbourhoods among the respondents. The findings showed that there were differences in satisfaction with the components the previous and current unplanned neighbourhoods. The findings further revealed that the respondents were very highly satisfied with current housing features and housing conditions, while moderately satisfied with neighbourhood amenities and accessibility in the current neighbourhoods. However, the respondents were dissatisfied with all the residential components in the previous neighbourhoods. Thus, the respondents were most satisfied with housing and neighbourhood components in the current than in the previous neighbourhoods. It is recommended that policy makers and urban and housing planners should pay more attention to the aspects of residential components that the young households were not highly satisfied with in future policy for improving residential situation of households living in unplanned areas in major cities.

Keywords: Residential satisfaction, residential components, unplanned neighbourhoods, young households, housing

1. Introduction

The high population growth and rapid urbanisation in major cities in developing countries increased demand for infrastructure and essential services including housing. Provision of housing in urban areas has been one of the serious challenges facing public authorities in developing countries like Nigeria. Successive governments in Nigeria have made attempts through various programmes and policies to overcome housing problems through slum clearance and public housing in the country (Ademiluyi, 2010). Despite such attempts, housing that satisfied the needs and desire of low income and poor urban residents, especially young households in most Nigeria's cities has become an illusion. This situation resulted in the emergence of unplanned residential developments which account for over 75% of the urban housing in the country and is characterized by dehumanizing housing conditions, lacking basic facilities and amenities for decent living (Okupe, 2002; Muhammad and Bichi, 2014). The emergence of unplanned neighbourhoods, especially at the periphery of some traditional cities in the country was attributed to inadequate housing space and facilities within the cities following high demand created by natural population growth and migration (Dankani, 2013). Distribution of infrastructural facilities and services among different neighbourhoods in Nigerian cities is uneven (Bashir, 2003), affecting quality of life of urban residents.

Kano city is one of the major cities in Nigeria that has been experiencing higher population growth and rapid urbanization, since independence in 1960 (Nabegu, 2010; Dankani, 2012; Bichi and Muhammad, 2014). For instance, in 1932, the population of Kano was 83,000, by 1952, it was 127,000, it had increased to 295,432 in 1963, 760,000 in 1973, 1.6 million in 1991 and 2.84 million in 2006 census. The current growth rate of population in the city was estimated to be 5.5% per annum (Olofin et al, 2008; Mustapha and Abdu, 2012;

Dankani, 2013). The growth has manifested in the high proportion of young households in Kano city. According to National Population Commission (NPC, 2009), Kano had 772, 850 young households who aged between 25 and 44 years accounting for 6.15% of the national figure. This current population growth of Kano metropolis leads to increase in the demands for urban facilities and services including housing, which are currently inadequate both in terms of quantity and quality (Bichi and Muhammad, 2014). The demands for housing resulted in the emergence of slums and unplanned residential areas within the metropolis which are growing faster than the planned residential areas (Dankani, 2013; Bichi and Muhammad, 2014). Unplanned developments in covered two-third of residential areas in Kano city (Homes, 1986). Houses in these unplanned areas are self-built by the households using their savings to buy building materials and pay construction services to local builders and labourers. These houses were both traditional compound houses and modern houses of different sizes and qualities. Modern houses were made up of block cement with zinc or aluminum roofing sheets and some households used long span sheets to roof their houses, while traditional houses were made up of mud and plastered with a mixture of sand and cement. Traditional houses are commonly found in the core city of Kano (Birni), while modern houses are found in peripheral unplanned neighbourhoods (Fig. 1). These houses were substandard and were either small or big depending on the residential plot sizes, some 25 ft x 25 ft, 50ft x 50ft and more, while others could not specific measurements because they were not surveyed layout plans, but illegal subdivisions by local landowner (Imam and Rostam, 2011). The core city of Kano (Birni) is unplanned ancient and walled city, mostly inhabited by indigenous people who hardly change residences outside the city in the past. In recent times, however, young households are moving out of the core city and other unplanned neighbourhoods to the periphery to rent or own houses. Inadequate space for expansion within the walled city necessitated moving out to the peripheral neighbourhoods (Dankani, 2013). Thus, differences in the quality of housing and facilities for various places presume variations in residents' satisfaction and responses to dissatisfaction (Ukoha and Beamish, 1997; Baiden et al, 2011).

Residential satisfaction is a measure of differences between households' current and preferred housing and neighbourhood situations (Galster and Hesser, 1981; Galster, 1987). It determines the way households respond to their housing environment and a measure their satisfaction with housing and neighbourhood situations (Kaitilla, 1993; Lu, 1997; Ogu, 2002; Hashim, 2003; Diaz-Serrano, 2006, Zanuzdana, et al., 2012). Households usually assess their residential situations in accordance with their needs, desires and expectations (Amérigo and Aragonés 1997; Vera-Toscano and Ateca-Amestoy, 2008). Satisfaction with housing situations indicates lack of complaints and an extent of a match between actual and desired situations, while a mismatch between current housing and desired conditions could lead to dissatisfaction (Vera-Toscano and Ateca-Amestoy, 2008; Mohit, et al., 2010). Thus, the individual becomes dissatisfied; if it does not achieve its desired housing situation and it influences housing adjustment (Morris and Winter, 1975).

Studies have shown that residential satisfaction is complex and its discussions in both developed and developing worlds for different residential environments involved many factors such as household characteristics, housing and neighbourhood characteristics and attributes (Lu, 1997; Vera-Toscano and Ateca-Amestoy, 2008; Mohit, Ibrahim and Rashid, 2010; Zanuzdana, et al., 2012; Caldieron, 2013; Kahraman, 2013; Ibem and Amole, 2013; Jansen, 2014; Makinde, 2014). Insight into the factors that influence residential satisfaction of households can provide information on the type of interventions that policy makers and urban and housing planners would offer to improve the quality of life of low income young households especially those with children in unplanned neighbourhoods in major cities (Dunstan et al., 2005; Jiboye, 2010; Jansen, 2014). This would also reduce inequalities in housing consumptions among urban residents (Fang, Zhang, & Fan, 2002; Sato, 2006) and curb residential differentiation in major cities (Gu & Shen, 2003; F. Wu, 2002). However, there is a paucity of studies on residential satisfaction of the dwellers of informal neighbourhoods in developing countries (Caldieron, 2011; Caldieron and Miller, 2013). Previous studies on resident satisfaction in informal neighbourhoods focused on the overall satisfaction with the housing and neighbourhoods, social relations, desire to move, the health and the importance of services and coping with the daily demands (Fried and Gleicher, 1961; Baiden, et al., 2011; Caldieron, 2011; Caldieron 2012; Zanuzdana, et al., 2012; Caldieron and Miller, 2013 and Li and Wu, 2013). However, few studies compared how satisfaction with residential components differs among households between previous and current unplanned neighbourhoods.

Based on the above argument, this paper compared satisfaction with residential components between previous and current unplanned neighbourhoods among young households in Kano, Nigeria.

2. Materials and Methods

2.1 Sampling Procedures and Data Analyses

Data for this study was obtained through a questionnaire survey in three randomly selected unplanned neighbourhoods at the periphery of Kano between 24th November, 2013 and 5th February, 2014 from the heads of young households, who changed residences from the old Kano city (Birni) in the past three to five years. A multi-stage cluster sampling technique was used to randomly select the three peripheral unplanned

neighbourhoods. Hankin (1984) stated that with two or more stages of sample selection, multi-stage cluster sampling is the most appropriate sampling procedure. These neighbourhoods were selected from three metropolitan Local Government areas out of seven Local Government areas that have peripheral unplanned neighbourhoods. In each of the three Local Government areas, namely; Nasarawa, Gwale and Kumbotso, five neighbourhoods were identified making fifteen neighbourhoods. From each of the five neighbourhoods in each of the three Local Government areas, one unplanned neighbourhood was randomly selected making three the neighbourhoods namely; Wailari, Dorayi Karama and Gama E. Therefore, Gama E was selected from Nassarawa Local Government area and it was located at the eastern part of Kano metropolis, Dorayi Karama selected from Gwale Local Government area and was located in the western part of the metropolis and Wailari was selected from Kumbotso Local Government area which was located at the southern part (see fig. 2). These selected neighbourhoods were the current neighbourhoods, characterised with medium density and less crowded compared to core city of Kano (Birni). The core city was characterised by high density, narrow streets, overcrowding and traditional houses (Dankani, 2012; Nabegu, 2010; Muhammad and Bichi, 2014), and was a major source of these young households who moved within the city. The housing types in both previous and current unplanned neighbourhoods are shown in Fig. 1.

The sample size for this study was determined using Krejcie & Morgan (1970) criteria. Sample size of 368 respondents was determined at $\alpha = 0.05$ level of significance (95% confident interval) from a population of 9,164 young households (NPC, 2009). Out of the determined sample size of 368, 78 respondents were determined for Wailari using probability proportionate to sample procedure, 136 for Dorayi and 154 for Gama E. The respondents from the households in each neighbourhood were selected randomly using systematic techniques for every fifth household. On the other hand, a set of structured questionnaire survey was administered to the 368 selected respondents and 364 (98.9%) were successfully retrieved, while 4 sets of questionnaire were invalid were not included in the data analysis. The instruments of the survey questionnaire on satisfaction with housing and neighbourhoods for this survey were adapted from previous studies (Ukoha and Beamish, 1997; van Poll, 1997 & Mohit et al, 2010). The questions were designed based on 41 housing and neighbourhood items; housing features 9 items, housing conditions 9 items, neighbourhood facilities 10 items and neighbourhood accessibilities 13 items. All these items were measured using a five-point Likert satisfaction scale options from 1 = very dissatisfied to 5 = very satisfied.

Descriptive statistic was employed in the analysis using an index of satisfaction developed and used by Yeh (1972) to compare the level of satisfaction between previous and current residential components (housing and neighbourhood) among the respondents. If an index shows +1.000, it stands for 'satisfied', 0.000 for 'acceptable' and -1.000 for 'dissatisfied'. Therefore, a positive score (+1.000) is for satisfaction with an attribute or item and a negative value (-1.000) is for dissatisfaction with a particular attribute, while zero (0) has no outright meaning but indicates equal response to satisfaction and dissatisfaction among the respondents. Yeh's Index of Satisfaction (YIS) has been used in many studies (Anwar and Zafar, 2003; Anwar et al., 2008), and was proved effective for describing of levels of satisfaction. The index can be obtained by subtracting the percentage of respondents who are dissatisfied from the number of satisfied ones and then divide the difference by the total number of responses ranging between +1 and -1. YIS can be written in a symbolic form as follows;

$$YIS = \frac{\text{Satisfied Cases}(X1) - \text{Dissatisfied Cases}(X2)}{\text{Total Cases}(X)}$$

$$= \frac{(X1) - (X2)}{X}$$

Table 1 shows the rule of thumb of Yeh's Index of Satisfaction which indicates the values and the corresponding levels of satisfaction by Yeh, 1972 & Yeh, 1975. A negative value of satisfaction shows that there are more respondents who are dissatisfied than those who are satisfied. The larger the negative value, the more the dissatisfaction. Moreover, paired sample t-test was used to determine the statistical significant differences in the level of satisfaction between previous and current residential components (housing and neighbourhood) among the respondents.

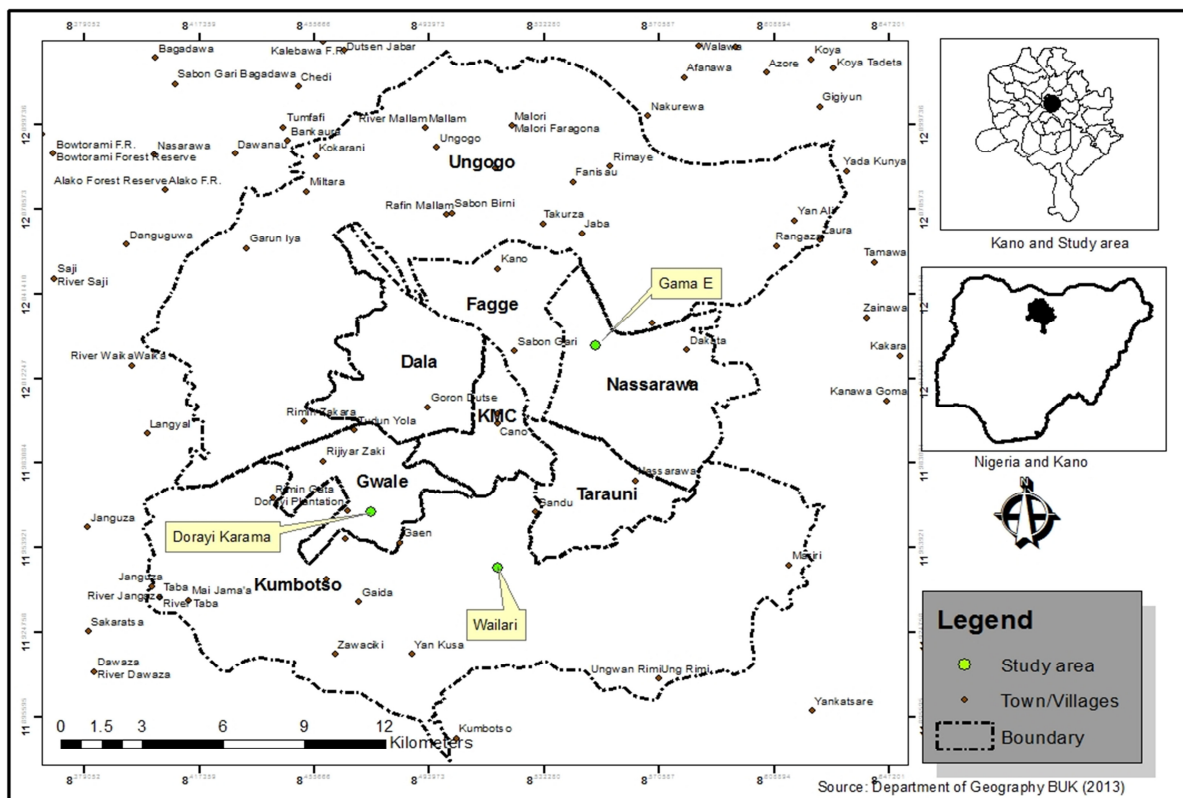
Table 1. YIS Level of Satisfaction

YIS	Level of Satisfaction
less than 0.20	very low
0.20 – 0.39	low
0.40 – 0.59	medium
0.60 – 0.79	high
0.80 and above	very high



Source: Fieldwork, 2013

Figure 1: Previous (A) and Current (B) unplanned neighbourhoods in the study area



Source: Department of Geography, Bayero University Kano, Nigeria (2013)

Figure 2: Map of Kano showing the Study area.

3. Results and Discussion

3.1 Comparison of Satisfaction with Residential Components between Previous and Current Unplanned Neighbourhoods using of Yeh's Index of Satisfaction (YIS)

Table 2 below presents the results of comparison of level of satisfaction between previous and current residential components in three unplanned neighbourhoods in Kano Metropolitan, Nigeria using of Yeh's Index of Satisfaction (YIS). The findings show that the respondents had very low level of satisfaction (dissatisfied) with all housing and neighbourhood components at the previous neighbourhoods; housing features (-0.41) and housing conditions (-0.376), neighbourhood amenities (-0.205) and neighbourhood access (-0.218). This is an indication that housing features, housing conditions, neighbourhood amenities and accessibility fall short of what

the respondents wanted in the previous neighbourhood. The respondents were not happy with the features because the houses built are small, few numbers of rooms, lack of privacy and distant location to schools from the house, high traffic flow in the house to room arrangement. These areas have inadequate facilities and have poor access to locations and facilities as well as services in the neighbourhoods. As argued by Muoghalu (1991), Olofin et al (2008) & Dankani (2013), houses in traditional cities in Nigeria like core Kano city are made up of mud, crowded and deteriorated structurally because of old age and use of substandard materials for construction. Muoghalu (1991) & Nwaka (2005) showed that informal neighbourhoods lack adequate facilities and services such as water supply, security, health and educational facilities, and roads. On rooms arrangement, Jiboye (2013) referred compound houses in some cities in Nigeria as ‘face-me- I- face- you’ because of room arrangements which lack privacy. Therefore, when compared with the previous neighbourhood, housing and neighbourhood situations of the respondents have improved in the current neighbourhoods as the finding shows that the respondents have a very high level of satisfaction with housing features (0.879) and housing conditions (0.833) in the current neighbourhoods, while they expressed medium level of satisfaction with neighbourhood amenities (0.55) and neighbourhood access (0.583).

This is indicating that the level of satisfaction among young households with neighbourhood accessibility for the current neighbourhoods was higher than the previous and shows that they were more satisfied with neighbourhood accessibility at the current than those at previous, suggesting an achievement for younger households. This is in line with Wiesenfeld (1992) that found high satisfaction with the current housing and neighbourhood components among his respondents compared to the previous components. Furthermore, higher level of satisfaction with the current housing features and conditions compared to the previous could be because the houses were owned by the majority of the respondents and most of them were new houses with number of bedrooms and rooms to accommodate the expanding young households. Similarly, high level of satisfaction with neighbourhood amenities and accessibility could be related to quietness and proximity to workplace, shops, children’s schools and religious places (mosques) and availability of water compared to previous neighbourhoods as some unplanned neighbourhoods at the peripheral areas in Kano were located very close to industries and sources of water supply (Nabegu, 2010; Dankani, 2013). This finding is also supported by the earlier studies such as Fred and Gleicher (1961) and Caldieron (2011) that found households in unplanned neighbourhoods have higher informal social relations between neighbours manifesting through many ways including borrowing and sharing of domestic utensils and food. Nwaka (2005) showed that unplanned neighbourhoods are characterised by informal economic activities such as petty trading and local shopping. Therefore, the finding revealed that the respondents were dissatisfied with the previous residential situation and satisfied with the current, indicating that they have achieved what they wanted. Jansen (2012) states that household who live in accordance with their preference would express more satisfied than those who did not.

Table 2: Comparison of level of satisfaction with residential components between previous and current neighbourhoods

S/N	Components	Previous YIS	Current YIS
1	Housing features components	-0.41	0.833
2	Housing conditions components	-0.376	0.879
3	Neighbourhood amenities components	-0.205	0.550
4	Neighbourhood accessibility components	-0.218	0.583

Source: Fieldwork, 2013

Notes: The positive values of YIS for the current components revealed satisfaction, while negative values indicates very low satisfaction (dissatisfaction) as shown above.

4. Conclusions

This paper compared of level of satisfaction with residential components between previous and current neighbourhoods among young households in Kano, Nigeria using of Yeh’s Index of Satisfaction (YIS). The findings of this study revealed that there were differences in the level of satisfaction between previous and current neighbourhoods for all components; housing features, housing conditions, neighbourhood amenities and neighbourhood accessibilities. The finding suggests that the respondents were dissatisfied with their previous housing and neighbourhood components, while satisfied with their current housing and neighbourhood components. The finding further shows that the respondents at the current neighbourhoods were most satisfied with the neighbourhood components than the housing components. This suggests the importance of spacious houses and adequate neighbourhood facilities and accessibility to young households in unplanned residential areas. The finding also suggests that young households in unplanned neighbourhoods need to have adequate housing and neighbourhood facilities and services such as water supply, roads, transportation, drainages, and schools for their children, health facilities and adequate security which might have effects on their quality of life.

These housing and neighbourhood attributes would have impacts on the satisfaction of young households and would also have significant implication for restructuring government policy on housing and urban development. The significance of housing and neighbourhood components suggests that the young households preferred to have spacious houses because of their family size or expectations to have more children. To enhance the quality of life and wellbeing of the young households living in unplanned neighbourhoods, the government should policy that would improve their satisfaction with the housing and neighbourhood components and more emphasis should be given to provision of houses with more rooms to accommodate larger families at affordable costs. In addition, the government should recognise the role of unplanned neighbourhoods in housing significant proportions of urban households by upgrading them through the provision of social and infrastructural facilities and services. The government could also give soft loans without interest to the households in unplanned neighbourhoods to improve their housing conditions by themselves.

References

- Ademiluyi, I. A. (2010). Public Housing Delivery Strategies in Nigeria: A Historical Perspective of Policies and Programmes. *Journal of Sustainable Development in Africa*, 12(6), 153–161.
- Amérigo, M. a., & Aragones, J. I. (1997). A theoretical and methodological approach to the study of residential satisfaction. *Journal of Environmental Psychology*, 17(1), 47-57.
- Anwar, H. N., & Zafar, M. I. (2003). Peoples' Perception and Satisfaction about the Provision of Utilities and Community Facilities under the Katchi Abadi Improvement Programme. *Pakistan Journal of Applied Sciences*, 3(6), 446–453.
- Anwar, H. N., Perveen, S., Mehmood, S., & Akhtar, S. (2008). Assessment of Farmer's Attitude towards Participatory Irrigation Management in Punjab-Pakistan. *Pakistan Journal of Life and Social Sciences (Pakistan)*.
- Baiden, P., Arku, G., Luginaah, I., & Asiedu, A. B. (2011). An assessment of residents' housing satisfaction and coping in Accra, Ghana. *Journal of Public Health*, 19(1), 29 – 37.
- Bashir, A. (2003). Regional Planning and Urban Infrastructure Development in the Gongola Region, North Eastern, Nigeria. *Global Journal of Social Sciences*, 2(1), 75 – 82.
- Caldieron, J. (2011). Residential satisfaction in la Perla informal neighborhood, San Juan, Puerto Rico. *OIDA International Journal of Sustainable Development*, 2(11), 77 – 84.
- Caldieron, J., & Miller, R. (2013). Residential Satisfaction in the Informal Neighborhoods of Ulaanbaatar, Mongolia. *Enquiry/The ARCC Journal of Architectural Research*, 7(1), 12-18.
- Dankani, I. M. (2012). Transportation challenges within the traditional walled city of Kano. *International Journal of Physical and Social Sciences*, 2(5), 101 – 115.
- Dankani, I. M. (2013). Constraints to sustainable physical planning in metropolitan Kano. *International Journal of Management and Social Sciences Research*, 2(3), 34 – 42.
- Diaz-Serrano, L. (2006). Housing satisfaction, homeownership and housing mobility: A panel data analysis for twelve EU countries: IZA Discussion Papers.
- Dunstan, F., Weaver, N., Araya, R., Bell, T., Lannon, S., Lewis, G., Palmer, S. (2005). An observation tool to assist with the assessment of urban residential environments. *Journal of Environmental Psychology*, 25(3), 293-305.
- Fang, C., Zhang, X., & Fan, S. (2002). Emergence of urban poverty and inequality in China: evidence from household survey. *China Economic Review*, 13, 430 – 443.
- Fried, M., & Gleicher, P. (1961). Some sources of residential satisfaction in an urban slum. *Journal of the American Institute of Planners*, 27(4), 305 – 315.
- Galster, G. (1987). Identifying the correlates of dwelling satisfaction. *Environment and Behavior*, 19(5), 539-568.
- Galster, G. C., & Hesser, G. W. (1981). Residential Satisfaction. *Environment and Behavior*, 13(6), 735-758.
- Gu, C., & Shen, J. (2003). Transformation of urban socio-spatial structure in socialist market economies: the case of Beijing. *Habitat International*, 27, 107 – 122.
- Hakin, D.G.(1984). Multistage sampling designs in fisheries research:applications in small streams. *Canadian Journal of Fisheries and Aquatic Sciences*, 41(11),1575-1591.
- 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.
- Ibem, E. O., & Aduwo, E. B. (2013). Assessment of residential satisfaction in public housing in Ogun State, Nigeria. *Habitat International*, 40, 163-175.
- Imam, M. Z., & Rostam, K. (2011). The impacts of unauthorised subdivisions of residential plots in Gadon Kaya, Kano City, Nigeria. *Geografya: Malaysian Journal of Society and Space*, 7(2), 1–10.
- Jansen, S. (2014). The impact of the have-want discrepancy on residential satisfaction. *Journal of Environmental Psychology*.
- Jiboye, A. D. (2010). The correlates of public housing satisfaction in Lagos, Nigeria. *Journal of geography and*

- regional planning*, 3(2), 017-028.
- Jiboye, A. D. (2014). Significance of house-type as a determinant of residential quality in Osogbo, Southwest Nigeria. *Frontiers of Architectural Research*, 3(1), 20–27.
- Kahraman, Z. E. H. (2013). Dimensions of Housing Satisfaction: A case study based on perceptions of rural migrants living in Dikmen. *METU JFA*, 1.
- Kaitilla, S. (1993). Satisfaction with Public Housing in Papua New Guinea The Case of West Taraka Housing Scheme. *Environment and Behavior*, 25(3), 514-545.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement* (30), 607-610.
- Li, Z., & Wu, F. (2013). Residential Satisfaction in China's Informal Settlements: A Case Study of Beijing, Shanghai, and Guangzhou. *Urban Geography*, 34(7), 923-949.
- Liu, A. M. (2003). The quest for quality in public housing projects: a behaviour-to-outcome paradigm. *Construction Management & Economics*, 21(2), 147-158.
- Lu, M. (1999). Determinants of residential satisfaction: Ordered logit vs. regression models. *Growth and Change*, 30(2), 264-287.
- Makinde, O. O. (2014). Influences of socio-cultural experiences on residents' satisfaction in Ikorodu low-cost housing estate, Lagos state. *Environment, Development and Sustainability*, 1–26.
- Mohit, M. A., Ibrahim, M., & Rashid, Y. R. (2010). Assessment of residential satisfaction in newly designed public low-cost housing in Kuala Lumpur, Malaysia. *Habitat International*, 34(1), 18-27.
- Morris, E. W., & Winter, M. (1975). A theory of family housing adjustment. *Journal of Marriage and the Family*, 79-88.
- Muhammad, M. & Bichi, A. M. (2014). Constraints and challenges on housing provision in Kano city, Nigeria. *International Journal of Advancements in Research & Technology*, 3 (6), 4 – 23.
- Muoghalu, L. N. (1991). Measuring housing and environmental quality as indicator of quality of urban life: A case of traditional city of Benin, Nigeria. *Social indicators research*, 25(1), 63-98.
- Mustapha, A., Abdu, A., & Geidam, A. L. (2013). The Influence of landuse and land-cover changes on surface water quality variations in the Jakara basin North- Western Nigeria. *International Journal of Advanced and Innovation Research & Technology*, 2(3)158-164.
- Mustapha, A. & Yakudima, I. (2008). Population and Settlement. In E.A. Olofin, A.B. Nabegu & A. M. Dambazau. *Wudil within Kano Region: A Geographical Synthesis* (pp. 35 - 52). Kano: Adamu Joji Publishers.
- Nabegu, A. B. (2010). An analysis of municipal solid waste in Kano Metropolis, Nigeria. *Journal of Human Ecology*, 31(2), 111-119.
- National Population Commission (NPC), (2009). 2006 Population and Housing Census of the Federal Republic of Nigeria Priority Tables (Volume I): National and State Population and Housing Tables. Abuja, Nigeria. Retrieved 29/05/2011 <http://www.population.gov.ng/index.php/publications/136-housing-characteristics-and-ameniti..> 130 - 222.
- Nwaka, G. I. (2005). The urban informal sector in Nigeria: towards economic development, environmental health, and social harmony. *Global Urban Development Magazine*, 1(1),
- Ogu, V. (2002). Urban residential satisfaction and the planning implications in a developing world context: The example of Benin City, Nigeria. *International planning studies*, 7(1), 37-53.
- Okezie, C., Ogbe, A., & Okezie, C. (2010). Socio-economic determinants of contraceptive use among rural women in Ikwuano Local Government Area of Abia State, Nigeria. *Int NGO J*, 5(4), 74-77.
- Okupe, L. (2002). Private sector initiatives in housing development in Nigeria-how feasible. *Housing Today*, 1(6), 21-26.
- Olofin, E. A., Nabegu, A. B., & Dambazau, A. M. (2008). *Wudil within Kano region: a geographical synthesis*. Published by Adamu Joji Publishers on behalf of The Department of Geography, Kano University of Science and Technology, Wudil.
- Sato, H. (2006). Housing inequality and housing poverty in urban China in the late1990s. *China Economic Review*, 17, 37 – 50.
- Ukoha, O. M., & Beamish, J. O. (1996). Predictors of housing satisfaction in Abuja, Nigeria. *Housing and Society*, 23(3), 26-46.
- Ukoha, O. M., & Beamish, J. O. (1997). Assessment of residents' satisfaction with public housing in Abuja, Nigeria. *Habitat International*, 21(4), 445–460.
- Van Poll, R. (1997). The perceived quality of the urban residential environment. *Westrom Drukkerij, Roermond*, 90, 186–193.
- Yeh, H. K. (1972). *Homes for the people: A study of Tenant's views on public Housing in Singapore*. Housing and Development Board and Economic Research Centre. Singapore: University Press.
- Yeh, S. H. K. (1975). *Public housing in Singapore: a multidisciplinary study*. Singapore University Press.
- Vera-Toscano, E., & Ateca-Amestoy, V. (2008). The relevance of social interactions on housing satisfaction. *Social indicators research*, 86(2), 257-274.

- Waziri, A. G., Yusof, N. A & Salleh, A. G. (2013). Residential Satisfaction with Private Housing Estate Development in Abuja-Nigeria. *ALAM CIPTA, International Journal of Sustainable Tropical Design Research and Practice*, 6(2), 3-12.
- Wiesenfeld, E. (1992). Public housing evaluation in Venezuela: A case study. *Journal of Environmental Psychology*, 12(3), 213–223.
- Wu, F. (2002). Sociospatial differentiation in urban China: evidence from Shanghai's real estate markets. *Environment and Planning A*, 34, 1591 – 1616.
- Zanuzdana, A., Khan, M., & Kraemer, A. (2013). Housing satisfaction related to health and importance of services in urban slums: evidence from Dhaka, Bangladesh. *Social indicators research*, 112(1), 163-185.

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