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;
plastered with a mixture of sand and cement. Traditional houses are commonly found in the core city of Kano.

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 (Amérgio 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, Namarawa, 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 α = 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 (99.8%) 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;

\[ YIS = \frac{\text{Satisfied Cases}(X_1) - \text{Dissatisfied Cases}(X_2)}{\text{Total Cases}(X)} \]

\[ = \frac{(X_1 - X_2)}{X} \]

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>
<thead>
<tr>
<th>YIS</th>
<th>Level of Satisfaction</th>
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<tbody>
<tr>
<td>less than 0.20</td>
<td>very low</td>
</tr>
<tr>
<td>0.20 – 0.39</td>
<td>low</td>
</tr>
<tr>
<td>0.40 – 0.59</td>
<td>medium</td>
</tr>
<tr>
<td>0.60 – 0.79</td>
<td>high</td>
</tr>
<tr>
<td>0.80 and above</td>
<td>very high</td>
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</tbody>
</table>
3. Results and Discussion

3.1 Comparison of Satisfaction with Residential Components between Previous and Current Unplanned Neighbourhoods using 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 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>
<thead>
<tr>
<th>S/N</th>
<th>Components</th>
<th>Previous YIS</th>
<th>Current YIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Housing features components</td>
<td>-0.41</td>
<td>0.833</td>
</tr>
<tr>
<td>2</td>
<td>Housing conditions components</td>
<td>-0.376</td>
<td>0.879</td>
</tr>
<tr>
<td>3</td>
<td>Neighbourhood amenities components</td>
<td>-0.205</td>
<td>0.550</td>
</tr>
<tr>
<td>4</td>
<td>Neighbourhood accessibility components</td>
<td>-0.218</td>
<td>0.583</td>
</tr>
</tbody>
</table>

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.

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