

# Factors Influencing the Decisions of Peri-Urban Residents on where they live in Minna, Niger State, Nigeria

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## Abstract

The search for an optimum residential location has been a source of chronic problem to the urban dwellers. In Nigeria, household residential choices are dependent on a wide range of housing and location attributes, which reflects various household characteristics. Howbeit, efforts made by different scholars have provided explanations on different reasons why residents prefer and choose some residential neighbourhoods to others. This study analyzed the factors influencing residents' decision to change their neighbourhoods in peri-urban areas of Minna. The data used were generated from the peri-urban residents through questionnaire administration. The systematic random sampling technique was employed in the selection of 825 respondents from 14 peri-urban neighbourhoods and the data from questionnaire administration were subjected to inferential statistical technique using factor analysis method. The study revealed three factors: comfortability (28.83%); homeownership (15.89%); and low rent (12.58%) as the major factors influencing the decision taken by peri-urban residents to live in their present neighbourhoods. The study concluded that most of the residents were motivated to live in their present neighbourhoods mainly because of the comfort derived from where they lived. It therefore recommended that serious attention of the Government to reviewing the outdated Minna Master Plan and rejuvenates the peri-urban areas with massive infrastructure development.

**Keywords:** development, neighbourhood change, peri-urban, urban area, residential location

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## Introduction

Rapid urban growth and development of the peri-urban areas across the world is one of the most attractive features of the contemporary research in urban studies. The pattern of migration has increased the levels of urbanization, urban agglomeration and peri-urban development (Pacione, 2005). Lawson *et al.* (2012) among several authors, maintained that the impacts of economic growth and physical expansion of the urban area are not confined within urban boundaries; but reach into much wider areas surrounding urban centres, creating so-called urban areas, urban fringe areas, or facilitating peri-urban expansion. Apart from the studies on patterns of development

in peri-urban area; especially on location and arrangement of residential buildings, investigation of the factors influencing the decision taken by urban residents to live in the peri-urban areas had long been of interest to the academia and urban managers (Olatubara, 1995; Idowu, 2017).

Several studies on housing in the recent time are centred on residential mobility or resident's locational preference (Okpala, 1981; Olatubara, 1995; Florez, 2002; and Abdulraheem *et al.* 2017). The efforts of scholars like Okpala (1981), Olatubara (1995) and Abdulraheem *et al.* (2017) among others have provided explanations on the occasional intra-urban change of

residences by urban households and the different reasons why residents prefer and choose some residential districts to others. Meanwhile, accessibility among other opportunity is considered to be the prime factor influencing the choice made by urban residents (Popoola & Aliyu, 2010; Abdulraheem *et al.*, 2017).

On the contrary, Florez (2002) admitted that the choice of residential location is not only a function of accessibility, but also the interaction of a set of other factors, such as neighbourhood with its dwelling attributes and even the household characteristics. In a related study on Ibadan, Olatubara (1995) employed activity pattern to explain urban residential location decisions in the city centre of Ibadan. The study revealed that the choice of residential location by households appeared to show a tendency toward proximity to their activity centre. Also, in other similar studies, Rivera and Tigalo (2005), maintained that travel time and travel cost were significant in choice of residential location in Manila. Also, Isaac *et al.* (2006) admitted that job location, residential filtering, household income and lifestyle, high crime levels significantly contributed to the natural migration of households to city suburbs in Columbus Ohio area in 1995.

Lamond *et al.* (2015) noted the continuation of massively-scaled peri-urban expansion under a variety of guises to meet the demand for space for urban accommodation, business and services. In Nigeria several factors have been adduced for the rapid expansion of the peri-urban areas. These factors, which range from physical, economic, social and political have not only influenced peri-urban expansion, but has contributed to residential mobility. The dynamic and integrative nature of peri-urban areas has been a major constraint, exhibiting sprawled pattern development (Ravetz, *et al.*, 2013; Johnson, 2001). The search for an optimum residential location has been a source of chronic problem to the urban dwellers (Olatubara, 1995). As observed by Kim *et al.* (2003), household residential choices are dependent on a wide

range of housing and location attributes, which reflects various household characteristics.

Since the colonial days, Minna had been central to the operation and activities of the railway system of transportation and colonial administration within the region. The functions which the town played by then, attracted the infrastructure for economic, socio-cultural and political development, all which facilitated the declaration of the town as the capital of Niger State in 1976. Thereafter, the increase in the size of Minna over the years has been phenomenal (Morenikeji *et al.*, 2015; Idowu, 2017), thus, transforming the land use of just a serene railway town with only one major road passing through it, to a variant of the land use system of typical urban setting, which is of global reckoning. Remarkably, Minna is the capital of Niger State. The town has experienced an induced mass drift of people, not only from its nearby towns and settlements, but also from the cities and towns across Nigeria. The locational preference for Minna residents, hereby, becomes the issue to address in this study. Therefore, this study examines the factors influencing residents' decisions on where to live in the peri-urban area. The outcome of this study corroborates the system conceptualizing peri-urban interface, dynamism and process of generating uncoordinated physical development in peri-urban areas, like Minna.

### **The Study Area**

Minna lies between Latitudes 9° 33' and 9° 40' North of the Equator and Longitudes 6° 29' and 6° 35' East of the Greenwich Meridian (Figure 1). The town spanned along the main spine road that separates the city into West and East. This road is from Chanchaga in the South to Maikunkele in the North, covering a distance of about 20km. The West - East pattern, spanned from Gidan-Kwano along Bida axis in the West, to Maitumbi to Gwada axis, in the East, over a distance of 15km (Figure 2). The delineated areas that are referred to as the peri-urban neighbourhoods of Minna

(Figure 3) comprises of Barkin-sale, Bosso Town, Bosso Estate, Chanchaga, Dutsen Kura Gwari, Fadikpe, Jikpan, Kpakungun, Maitumbi, Sauke-Kahuta, Shango, Tayi-Village, Tundun-Fulani and Nyikangbe/Gbaganu.

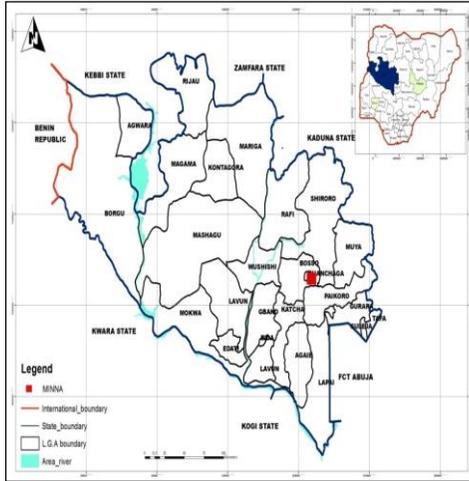


Figure 1: Map of Niger State insert is the Map of Nigeria

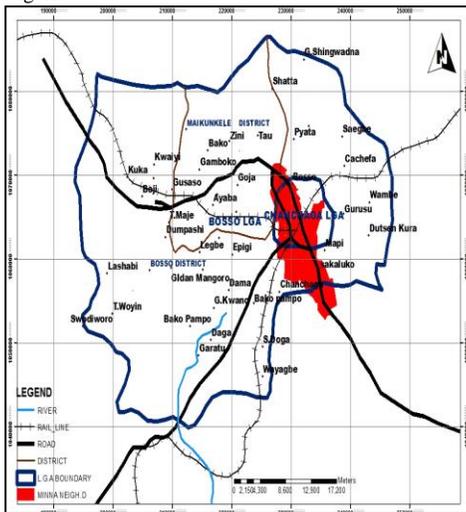


Figure 2: Minna in the context of Local Government Areas

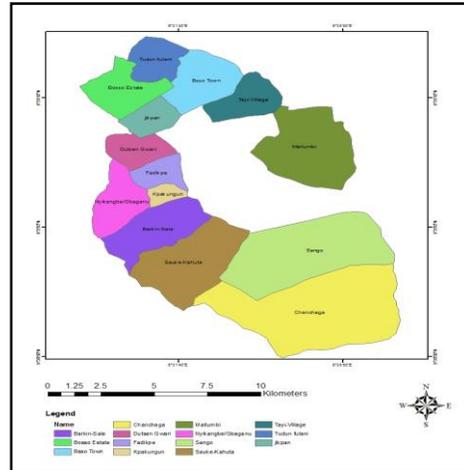


Figure 3: The Peri-urban Neighbourhoods of Minna

### Methodology

The study relied on the primary source through questionnaire administration. The systematic random sampling technique was employed in the selection of 825 respondents across the 14 peri-urban neighbourhoods mentioned in section 2.0. The data from questionnaire administration were subjected to inferential statistical technique using factor analytical method. In this study, sixteen (16) factors were considered in examining the factors that influence residents' decisions on where to live in the peri-urban areas of Minna. The need to reduce the sixteen factors (Table 1) necessitated the use of the factor analysis technique. The main advantage of the factor analysis is that it has the capacity to take a large set of variables and reduce them into a smaller set of components. The sixteen variables were subjected to factor analysis using Varimax rotation and Kaiser Normalization. The factors extracted are saved as scores in the matrix table and loadings for each variable observed.

**Table 1 Sixteen Factors used in Determining Residents' Change of Neighbourhood**

S/No	Factor	S/No	Factor
1	Ethnic /religion	9	Redevelopment of the former neighbourhood of residence
2	Reduction in the price of land	10	Informal economy
3	Low housing rent	11	Voluntary change in neighbourhood
4	Proximity to place of work	12	Proximity to city centre
5	Availability of community facilities	13	Interesting architecture and building design
6	Security of the Neighbourhood	14	Shift from rental tenure to homeownership
7	Avoidance of the influence of government policy	15	Change in profession or employment
8	Availability of personal/private means of transportation	16	Tenure composition

## Results Discussion

### Suitability of Data Used

An assessment of the suitability of the data for factor analysis was carried out. This involved inspecting the correlation matrix of coefficients of 0.3 and above and calculating the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) and Bartlett's Test of Sphericity. Pallant (2005) suggested that the Bartlett's test of sphericity could be significant at ( $p < .005$ ) and the Kaiser-Meyer-Olkin (KMO) index could range from 0 to 1, while the minimum value of KMO should not be less than 0.6. Table 2 shows the result of the analysis: Kaiser-Meyer-Olkin (KMO) index is 0.928, while the Bartlett's test of sphericity is significant at ( $p = .000$ ). This implies that the data is suitable for factor analysis.

### Variables Extracted on the Factor Analysis

The factors that have eigenvalues of 1 (Table 3) were extracted. These factors are I (6.864); II (1.275); and III (1.029) and they account for 42.903%; 7.967% and 6.429% of the variance, respectively. When put together some 57.299% of the total variance can be explained by these factors.

**Table 2: Reliability of Data**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.928
Bartlett's Test of Sphericity	Approx. Chi-Square	4493.394
	df	120
	Sig.	0.000

Source: Author's Analysis (2016)

The factors were 'rotated' so that it presents the pattern of loadings in a manner that is easy to interpret. The three factors after rotation became Factor I (28.83%), Factor II (15.89%) and Factor III (12.58%). Consequently, only the three factors were extracted. In other words, the variables that are loaded on these three factors would indeed appear sufficient to explain the factors that influence the decision of respondents to change their neighbourhood to where they live in the peri-urban area of Minna.

As a matter of fact, the Scree Plot (Figure 4) revealed a clear break after Factor I, because it explained more of the variance than Factors II and III. It would appear appropriate, therefore; to use Factor I, but on rotation, Factors II and III became more relevant (Table 4). In any case, the rotation does not change the underlying factors rather it presents the pattern of loadings in a manner that is easier to interpret.

**Table 3: Total Variance Explained**

Factor	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.864	42.903	42.903	4.613	28.829	28.829
2	1.275	7.967	50.870	2.542	15.889	44.718
3	1.029	6.429	57.299	2.013	12.581	57.299
4	0.815	5.096	62.395			
5	0.805	5.032	67.427			
6	0.715	4.469	71.896			
7	0.618	3.865	75.761			
8	0.59	3.687	79.448			
9	0.503	3.143	82.591			
10	0.493	3.079	85.67			
11	0.471	2.945	88.615			
12	0.457	2.858	91.473			
13	0.414	2.589	94.062			
14	0.344	2.15	96.213			
15	0.328	2.052	98.265			
16	0.278	1.735	100			

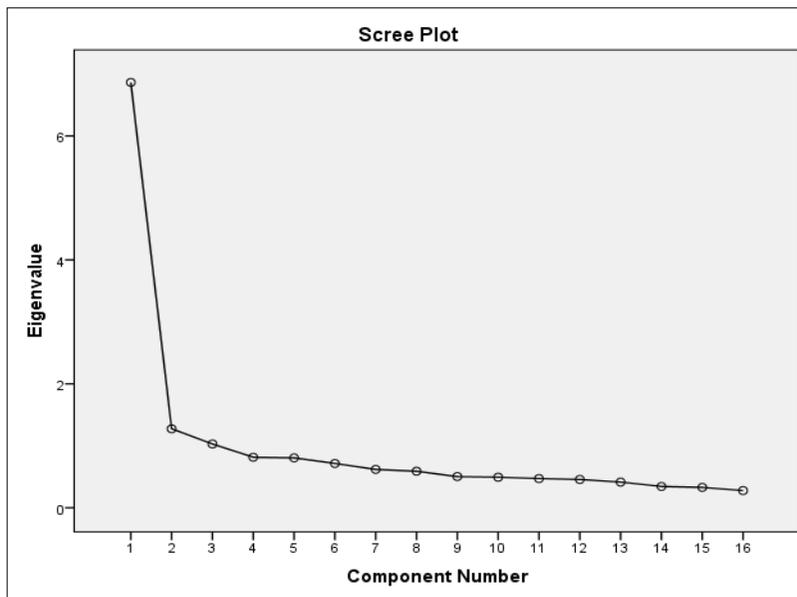


Figure 4: Scree plot of the factors influencing respondents' decisions on where they live  
 Source: Author Analysis, (2016).

Factor I have the highest numbers of loadings, with highest loadings on the security of the neighbourhood (0.752). Other variable loadings on Factor I are availability of infrastructure/community facilities (0.742); avoidance of the influence of government policy (0.732); and availability of private and/or personal means of transportation (0.724). Factor contributed 28.83% of explanation to the variance that influenced the decision of

residents to live in their present neighbourhoods. This can be appropriately labeled as comfortability.

Factor II has an Eigenvalue of 2.542 and contributed 15.89% to the variance that explained how home ownership influenced residents' decision to live in their present neighbourhoods. Apart from the shift from rental tenure to home ownership occupier (0.744) that contributed the highest,

similarly, reduction in the price of land (0.721) also contributed to the increase in the rate of home ownership.

Factor III has the highest loadings on low housing rent (0.815) and followed by proximity to place of work (0.743). This factor has an Eigenvalue of 2.013 and contributed 12.558% of explanation of the variance on the influence of low rent on the decision taken by the residents of the peri-

urban areas of Minna to live in their present neighbourhoods.

### Factors Influencing Residents' Decision on where to live in the Peri-urban Areas

The factors that influenced the decision of peri-urban residents in Minna as deduced from the analysis are attributed to three components, namely, comfortability; home ownership; and low rent (Table 5).

Table 4: Value Loading on Factor 1 - 3

Variable	Factor		
	1	2	3
Ethnic/religion	0.561	0.324	
Reduction in the price of land*	0.141	<b>0.721</b>	0.255
Low housing rent*		0.236	<b>0.815</b>
Proximity to place of work*	0.321		<b>0.743</b>
Availability of community facilities*	<b>0.742</b>		0.304
Security of the neighbourhood*	<b>0.752</b>	0.127	0.189
Avoidance of the influence of government policy*	<b>0.732</b>	0.333	0.115
Availability of private or personal means of transportation*	<b>0.724</b>	0.224	
Redevelopment of the formal neighbourhood of resident	0.666	0.332	0.243
Informal economy or disposable income	0.54	0.377	0.253
Voluntary change in neighbourhood	0.563	0.356	0.168
Proximity to the city centre	0.596	0.118	0.407
Interesting architecture and building design	0.338	0.563	0.31
Shift from rental tenure to home ownership*	0.208	<b>0.744</b>	-0.139
Change in profession or employment	0.451	0.344	0.378
Land tenure composition	0.478	0.544	0.12
<b>Variance Explained</b>	<b>4.613</b>	<b>2.542</b>	<b>2.013</b>
<b>% Explained</b>	<b>28.829</b>	<b>15.889</b>	<b>12.581</b>
<b>Cumulative %</b>	<b>28.829</b>	<b>44.718</b>	<b>57.299</b>

Note: The \* indicates the factor loading, while the bold indicates the significant value loading

Table 5: Factors Influencing the Residents' Decision to live in the Peri-urban Area

Factor Description	Factors	Loading	%Variance Explained
<b>Factor I:</b> Comfortability	Security of the neighbourhood	0.752	28.83%
	Availability of community facilities	0.742	
	Avoidance of influence of government policy	0.732	
	Availability of private/personal means of transportation	0.724	
<b>Factor II:</b> Home ownership	Shift from rental tenure to home occupier ownership	0.744	15.89%
	Reduction in the price of land	0.721	
<b>Factor III:</b> Low rent	Low housing rent	0.815	12.58%
	Proximity to place of work	0.743	
<b>Sum of Variance Explained</b>		57.30%	

Source: Author's Analysis, 2016.

This implies that most of the respondents were motivated to choose their present neighbourhoods mainly because of the comfort derived from where they live, which may not be unrelated to the change in status of being a tenant to that of home-ownership and low rent. The ease of land acquisition for personal houses due to the informal system of land ownership in the peri-urban areas appear to be the reason for the majority of the people to reside in these parts of Minna. The implication of the decision of urban dwellers to a certain extent, has led to the increase in demand for developable land in the peri-urban areas, the development has been without planning, exhibiting ribbon, scattered and leapfrog pattern of development in the peri-urban areas of Minna. The movements of people to peri-urban areas were the result of the security of the environment; availability of community facilities; avoidance of influence of the government policy; availability of personal means of transportation; shift from rental tenure to home ownership; reduction in the price of land; low housing rent; and proximity to place of work.

### Conclusion and Recommendations

The study has observed the factors that influenced the decision of peri-urban residents to live in their present neighbourhoods in Minna. Using factor analysis technique, three factors: comfortability, home ownership and low rent were identified to be important in the decision taken by respondents. The analysis shows that most of the residents were motivated to live in their present neighbourhoods mainly because of the comfort derived from where they lived. In order to make the peri-urban areas of Minna sustainability, the need for proper planning of the areas and control of development is imperative. Foremost, the government should give a serious attention to the review of the outdated Minna Master Plan and initiate the planning, design and implementation plan for peri-urban rejuvenation and massive infrastructure upgrading in all the peri-urban neighbourhoods of Minna.

### References

- Abdulraheem, M. O.; Olorunfemi, J. F.; Ajibade, L. T. & Agava, Y. H. (2017). Perspectives of Neighbourhood Preference: A Study of Ilorin City, Nigeria. *Environmental Technology and Science Journal*. 8 (2), 196 – 211.
- Florez, J. (2002). *Effects of Accessibility on Residential Land Patterns*. A PhD. Research at Univesidad politrcnica de Catalufia, Departmento de Infraestructura del Transportey Territorio (Esp-a). Support of CO1, IICIT (Venezuela).
- Idowu, O. O. (2017). *Spatio-Temporal Analysis of Peri-urban Development in Minna, Niger State*. A PhD. Thesis submitted to Department of Geography and Environmental Management, University of Ilorin, Ilorin Kwara State.
- Isaac, B. I., Irwin, E. G. & Haab, T. (2006). Determinant of Residential Location Choice: How Important are Local Public Goods in attracting Homeowners to Central City Locations? *Journal of Regional Science*. 46(1), 97 – 120.
- Lamond J., Awuah B. K., Lewis E., Bloch R., & Falade B. J. (2015). Urban Land, Planning and Governance Systems in Nigeria. Urbanisation Research Nigeria (URN) Research Report. London: ICF International. Downloaded from <https://assets.publishing.service.gov.uk/.../61250-URN>. On 8/5/2016
- Lawanson, T., Yadau, O. & Salako, I. (2012). Environmental Challenges of Peri-Urban Settlements in the Lagos Megacity. Proceedings REAL CORP 2012 Tagungsband, 14-16 May 2012, Schwechat. 275 - 285. <http://www.corp.at>.
- Morenikeji, G., Umaru, E. T., Liman, S. H. & Ajagbe, M. A. (2015). Application of Remote Sensing and Geographic Information System in Monitoring the Dynamics of Land use in Minna, Nigeria. *International Journal of Academic Research in Business and Social Sciences*. 5 (6), 230-337. Accessed from

<http://dx.doi.org/10.6007/IJARBSS/v5-i6/1682>.

- Okpala, D. C. I. (1981). Residential Mobility in Nigerian Cities: An Exploratory Analysis. NISER Monograph Series No. 10. Nigerian Institute of Social and Economic Research (NISER) Ibadan.
- Olatubara, C. O. (1995). *Activity Pattern and Urban Residential Location Decision in Ibadan, Oyo State*. Being an Unpublished PhD Thesis Submitted to the Department of Geography, Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria.
- Oriye, O. (2013). Urban Expansion and Urban Land Use in Ado Ekiti, Nigeria. *American Journal of Research Communication*. 1(2): 128-139. [www.usa-journals.com](http://www.usa-journals.com).
- Pacione, M. (2005). *Urban Geography: A Global Perspective*. 2<sup>nd</sup> Edition, New York, NY Routledge,.
- Pallant, J. (2005). *SPSS Survival Manual: A Step by Step Guide to Data Analysis using SPSS*. Australia: Allen & Unwin.
- Popoola, N. I. & Aliyu, J. S. (2010). Determinants of Tenant's Preference for Residential Property Location within Minna, Nigeria. *Journal of Geography, Environment and Planning (JOGEP)*. University of Ado-Ekiti. 6(2), 1 – 7.
- Rivera, M. A. I. & Tiglao, N. C. (2005). Modelling Residential Location Choice, Workplace Location Choice and Mode Choice of Two Worker Households in Metro Manila. *Proceeding of the Eastern Asia Society for Transportation Studies*. 5, 1167 – 1178.

