

Factors Affecting the Choice of Residential Housing in Lokoja, Kogi State, Nigeria

A. I. Opaluwa¹ and A. Aribigbola²

1. Department of Physical Planning, Kogi State University, Anyigba, Nigeria

E-mail: aliopal2003@yahoo.com

2. Department of Geography and Planning Sciences, Adekunle Ajasin University, Akungba Akoko, Ondo State, Nigeria.

Abstract

The study focused on the factors affecting the choice of residential units in Lokoja, Kogi State, Nigeria. The data for the study was collected from 610 households in 2012. The multinomial logistic regression analysis was used to analyze the factors affecting the choice of residential units in the study area. The result of the study indicated that household size, distance to health and medical facilities and distance to place of work affected the choice of rooming house while cost of housing, distance to medical facilities and place of work influenced the choice of single detached family house. The choice of duplex were influenced by household size, household income, distance to place of work, availability of portable water supply and availability of toilet facilities. The outcome of the study further indicated that the preference of flats were determined by cost of housing, age, distance to medical facilities and distance to place of work while semi detached family house was affected by cost of housing, distance to medical facilities, car ownership status and availability of portable water supply. It was also revealed that choice of Terrace family house was determined by distance to medical facilities and distance to place of work while cost of housing, distance to health and medical facilities and distance to place of work affected the preference of traditional compound. This study recommends that there should be a reduction in the cost of housing through subsidies of building materials and the provision of basic amenities so as to facilitate the choice of the desired housing type in the study area.

Key Word: Factors, Choice, Residential, Housing, Lokoja, Kogi, Nigeria

1.0 Introduction

Residential housing is a basic necessity of human existence. Housing is a place of shelter, refuge, comfort, security and dignity (Ademiluyi 2010). Housing according to Sikiru *et al* (2013) has both economic and welfare effects on the development of a Society. He posited that economically, housing contributes to fixed capital formation, employment and substantial backward and forward linkages with the rest of the economy. The welfare effects according to him include shelter for the populace, access to health and educational services as well as employment opportunities may lead to higher productivity and income for poor families. Despite this importance, the housing market has witness low government participation. The private sector provide about 80% of the total housing demand in Nigeria (Olatubara, 2008). This constitutes a serious challenge to the housing needs of the fast growing population because of the high cost of rentage placed by these private property owners.

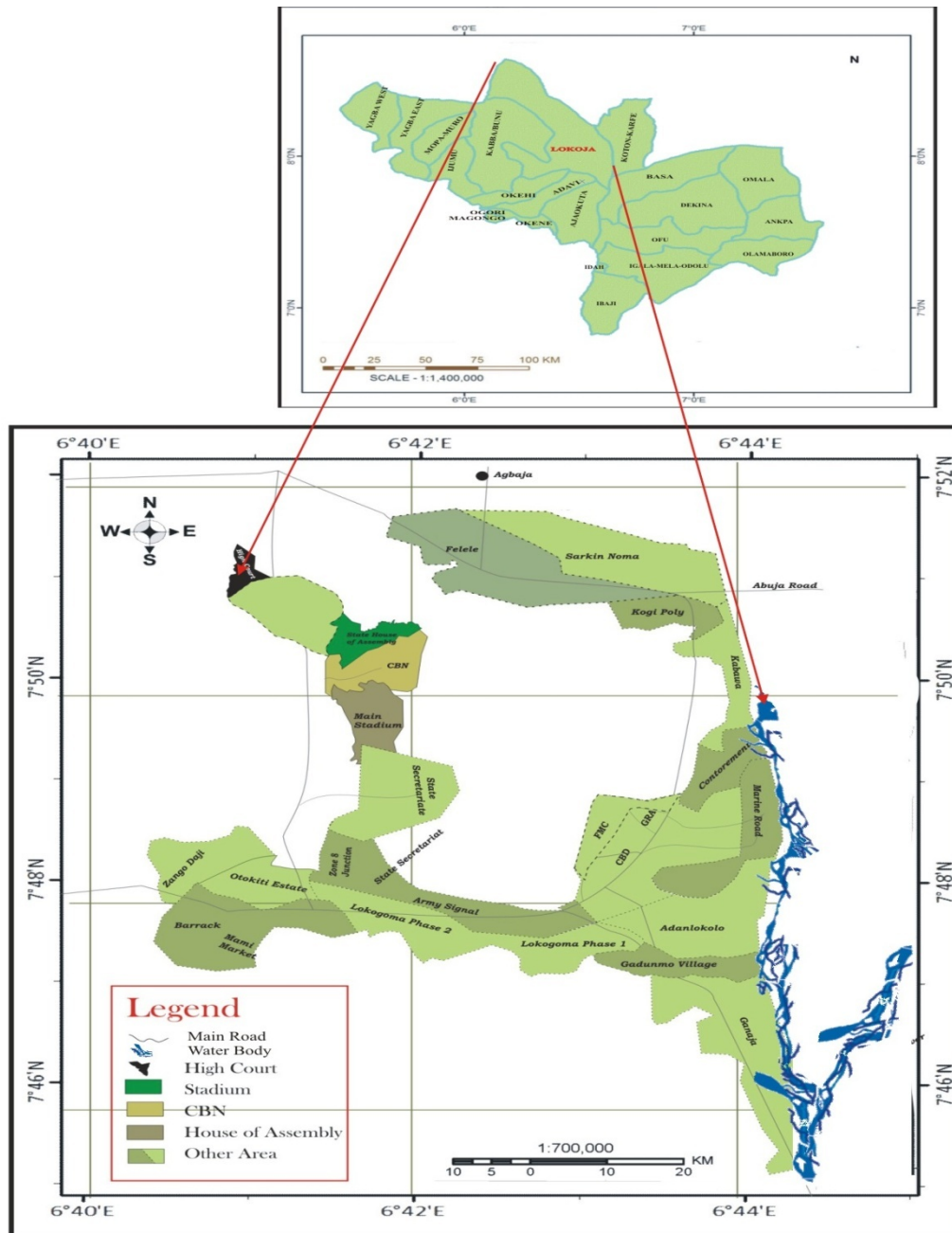
Choice may be defined as the ability to choose between two or more competing things or objects. It is the ability to select from among a number of alternatives. It is believed that human beings do not have a fixed nature or essence as animals and plants do, each human being makes his own choice that creates his or her own nature. Choice is central to human existence as even the refusal to choose is a choice. Choice is not a onetime phenomenon but an ongoing concern (Michelson, 1975). Housing choice therefore involves continuous decisions of the people about where to reside, based existing bundle of services, facilities and housing goods. The life cycle model posits that as individuals move through the various stages of life, their housing needs change, prompting moves to more suitable housing (Freeman, 1998). This suggests that younger, single, unmarried, and childless individuals are most likely to move and housing choice will vary or change more rapidly among individuals having these characteristics, although old age may require housing adjustment and old households that had saved enough while they were young would be able to afford the adjustment. It can therefore be deduced that mobility indicates a new housing choice and requirement (Megbolugbe *et al* 1991; Tatsiramos, 2006). The works of Aribigbola, (2008) and Scot (2011) using the Rational model explained that individuals become impoverished and dependent on public assistance or others or are forced to live in substandard housing. Individuals in Lokoja most often times do not dwell in housing units of their choice. Thus they are constrained to live in substandard houses. This condition prevents individuals in the study area from deriving maximum utility from housing consumption. The question that comes to mind is to find out factors that affect the choice of housing units in Lokoja. Thus it is against this background that the study is out to determine the factors affecting the choice of residential housing with respect to the different housing types in the study area. This study also intends to test the following hypothesis;

1. There is no significant relationship between socioeconomic variables and housing choice.
2. There is no significant relationship between locational variables and housing choice

2.0 The Study Area

Lokoja, the study area and the administrative capital of Kogi state, Nigeria is situated in Lokoja Local Government Area of the state, and lies between Latitudes $7^{\circ}45'$ N and $7^{\circ}52'$ N and Longitudes $6^{\circ}40'$ E and $6^{\circ}45'$ E. It is sandwiched between the slopes of the high plateau of the Patti ridge which is above 400m above mean sea level and the western bank of the Niger River at an altitude of 45 - 125m above mean sea level. The confluence of Nigeria's two great Rivers, the Niger and Benue is situated in the town alongside some of their tributaries. With an area of

about twenty square kilometers (20km²). Lokoja is situated 76 kilometers from Okene, along the Okene - Abuja highway and it is a gateway of sort between the Eastern, Western and Northern parts of the country. The town which shares common boundaries with Kogi, Ajaokuta, Adavi, Kabba/Bunu and Bassa Local Government Areas of the state has been witnessing rapid urbanization and socio-economic growth owing to continued influx of people since it attained the status of state capital in 1991 and its proximity to the Ajaokuta steel complex and Obajana cement plant



Source: GIS Lab. Department of Geography and Planning, KSU

Fig. 1.1 Lokoja showing the study area

3.0 Research Methods

The research was designed to collect data through field survey. At the preliminary stage of the study, field reconnaissance survey was carried out to familiarize the researcher with the study area for the purpose of accurate determination of delimitation and delineation of areal scope as well as the identification of basic housing types and characteristics. Sixteen residential neighbourhoods identified in Lokoja urban centre are used for the study. The main data for the study was collected by means of questionnaire administered to heads of households in the study area. Well-trained field assistants were recruited for the purpose of administering the questionnaire. A total of 610 households, were selected based on Taro Yamane's formula (1967) as sample size for questionnaire administration. Using a multi-stage sampling technique, data were collected through questionnaire administered among the sixteen zones according to the population or size of the area. In each zone, major streets were identified through multi-stage random sampling and houses selected systematically at intervals of 10. In each street the first house to be surveyed is selected with the use of random numbers and there after subsequent households selected from the 10th house along the street. However whenever the 10th building or residence is unavailable respondents for questionnaire administration were drawn from the 9th or 11th houses/building as was deemed appropriate (variable systematic sampling). The collected data were analyzed by multinomial logistic regression analysis using SPSS 20.

3.1 Multinomial Logistic Regression model

The multinomial logit regression model was used by Awoyemi *et al* (2011) to analyze the factors affecting the choice of healthcare alternative. This model is based on the random utility model. The model posits that the utility (u) a household derives from utilizing a particular housing type is a linear function of at least two sets of explanatory variables:

(i) source attributes which affect household's utility;

and (ii) household's status, socio-economic characteristics, locational variables such as proximity, housing quality which affect differences in taste and preferences among households (X).

$$U(\text{alternative } 0) = \beta_0 + e_j$$

$$U(\text{alternative } 1) = \beta_1 + e_j$$

$U(\text{alternative } j) = \beta_j + e_k$ Suppose the observed outcome (dependent variable) = choice j . If $U(\text{alternative } j) > U(\text{alternative } k)$ " $j=k$, then

$$U_j + e_j > U_k + e_k$$

The probability of choosing an alternative is equal to the probability that the utility of that particular alternative is greater than or equal to the utilities of all other alternatives in the choice set. The dependent variables are discrete taking values 0, 1, 2,3,4,5 and 6 and they are for the cases of choice of a particular housing type; these are Traditional family compound, Rooming House, Single Detached Family House, Duplex, Flats, Semi Detached Family House and Terrace Family House respectively. The independent variables include;

Household (Number of persons), Cost of housing(₦), Age of household head(Years), Household income (₦)

Nativity of Lokoja, Dummy (1= Native, 0 otherwise), Distance to health and medical facilities (Km)

Distance to Place of Work (Km), Car Ownership Status, Dummy (1= owns a car, 0 otherwise), Availability of

Portable Water Supply Dummy(1= yes, 0 otherwise), Availability of Toilet Facilities Dummy(1= yes, 0 otherwise)

4.0 Results and Discussion

Table 1. : Result of Multinomial Logistic Regression Analysis on the Determinants of Housing Choice in Lokoja

	Rooming House	Single Detached Family House	Duplex	Flats	Semi Detached Family House	Terrace Family House
Variables	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
Household Size	0.719 (2.783)	0.502 (0.346)	1.312 (2.565)	0.862 (1.514)	0.306 (1.774)	0.804 (0.712)
Cost of Housing	-0.155 (-1.432)	-0.097 (-1.893)	-0.089 (-1.274)	0.451 (2.874)	-0.063 (-2.010)	0.022 (0.543)
Age	-0.504 (-0.157)	-0.364 (-0.644)	0.107 (0.737)	0.037 (3.731)	-0.214 (0.994)	-0.638 (-1.112)
Household Income	-0.002 (-0.673)	0.414 (0.847)	0.459 (2.684)	0.744 (1.056)	-0.319 (-1.533)	-0.515 (-0.734)
Nativity	0.006 (1.113)	-0.003 (-0.966)	0.090 (0.137)	0.001 (1.356)	0.004 (0.364)	0.008 (0.644)
Distance to Medical Facilities	-0.142 (-3.673)	-1.113 (-2.346)	0.019 (0.429)	0.091 (3.972)	-0.255 (-1.972)	-0.110 (-3.224)
Distance to Place of Work	- 0.052 (-2.857)	- 0.053 (-3.734)	-0.030 (-1.977)	-0.029 (-2.982)	0.047 (0.236)	- 0.086 (- 4.435)
Car Ownership Status	0.713 (0.104)	0.003 (0.766)	0.242 (1.374)	0.111 (0.933)	0.064 (2.177)	0.271 (1.742)
Availability of Portable Water Supply	0.301 (1.360)	1.609 (1.734)	0.680 (2.651)	0.772 (1.538)	0.909 (2.116)	0.375 (0.933)
Availability of Toilet Facilities	4.260 (1.863)	3.634 (0.193)	3.059 (3.166)	2.044 (1.255)	3.910 (1.421)	2.341 (1.665)
Cons	-0.842 (-6.175)	0.571 (4.334)	-0.377 (-3.114)	0.691 (0.944)	0.496 (2.133)	0.264 (1.992)

Source: Computed from Researcher’s Field Survey, 2012. .

Figures in parenthesis represent t-value

Significant at 5%

LR chi 2 (60)=228.24

Prob > chi 2 = 0.0000

Pseudo R2 = 0.612 Traditional compound = Base,

The result of the Determinants of housing choice presented on Table 1.0 shows that house hold size, distance to health and medical facilities and distance to place of work are the factors affecting the choice of rooming house. House hold size has a direct relationship with choice of rooming house. This implies that the more the household sizes of the respondents, the more they will show preference for rooming house than traditional compound. Distance to medical facilities and place of work exhibited an inverse relationship with the choice of rooming housing; this implies that the more the distances to medical facilities and places of work, the less preference they will show for rooming housing and the more preference they will show for traditional family compound.

The choice of single detached family house was affected by cost of housing, distance to medical facilities and place of work. These variables show inverse relationship with the choice of single detached family house. The inverse relationship exhibited by cost of housing implies that the more the cost of single detached family house, the less preference the respondents will show for it and the more they choose traditional family compound. The same explanation for the inverse relationship of distance to medical facilities and place of work in the case of choice of rooming house hold here.

The determinants of the choice of a duplex in the study area are household size, household income, distance to place of work, availability of portable water supply and availability of toilet facilities. Distance to place of work exhibited negative relationship with the choice of duplex; this implies that as the variable increases, the preference for duplex will decrease, making the respondent to have more preference for traditional compound. Household size, household income, availability of portable water supply and toilet facilities have positive relationship with the choice of duplex; this implies that the more the increase in these variables, the more they will show preference for duplex than traditional compound in the study area.

The factors affecting the choice of flats are cost of housing, age, distance to medical facilities and distance to place of work. The cost of housing, age and distance to medical facilities have positive relationship with choice of flats,

this means that an increase in any of these variables will lead to an increase in the preferences for flats than traditional compounds. The distance to place of work had negative relationship with the choice of flats, implying that the more the distance to place of work of the respondent the less preference the respondents will show for flats and show more preference for traditional compound.

The choice of semi detached family house is affected by cost of housing, distance to medical facilities, car ownership status and availability of portable water supply. The cost of housing and the distance to medical facilities have inverse relationship with the choice of semi detached family house. This implies that an increase in any of these variables will lead to a reduction in the choice of semi detached family house and increased preference for traditional compound. Car ownership status and availability of portable water supply exhibited positive relationship.

The factors affecting the choice of Terrace family house were distance to medical facilities and distance to place of work. These variables have inverse relationship with the choice of Terrace family house, this implies that an increase in the distances to medical facilities and place of work will lead to a reduction in the choice of Terrace family house and increase in the choice of traditional compound.

4.1 Test of Research Hypotheses

Hypotheses 1 and 2 were tested using the t-values of the estimates of the multinomial logistic regression model. The decision rule is to reject the null hypothesis if the t-values are significant at 5% .

Table 2: Test of Significance between Socioeconomic Variables and Housing Choice

	Rooming House	Single Detached Family House	Duplex	Flats	Semi Detached Family House	Terrace Family House
Variables	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
Household Size	Reject Null Hypothesis	Accept Null Hypothesis	Reject Null Hypothesis	Accept Null Hypothesis	Accept Null Hypothesis	Accept Null Hypothesis
Age	Accept Null Hypothesis	Accept Null Hypothesis	Accept Null Hypothesis	Reject Null Hypothesis	Accept Null Hypothesis	Accept Null Hypothesis
Household Income	Accept Null Hypothesis	Accept Null Hypothesis	Reject Null Hypothesis	Accept Null Hypothesis	Accept Null Hypothesis	Accept Null Hypothesis

Source: Computed from Researcher’s Field Survey, 2012.

For rooming house, the null hypothesis for house hold size was rejected because its estimate was significant at 5% while it was accepted for age and household income. In the case of choice of single detached family house in lokoja, the null hypothesis was accepted for household size, age and household income because their estimates were not significant at 5%. The null hypothesis for household size and Household income were rejected in the case of choice of duplex in Lokoja while it was accepted for age. This implies that there is significant relationship between household size and income and choice of duplex in Lokoja while age has no significant relationship with choice of duplex. The only social economic variable which has significant relationship with choice of flat in Lokoja is age because its estimate was significant at 5%, thus the null hypothesis is rejected while the null hypothesis for household size and household income was accepted. The null hypothesis for all the socioeconomic variables tested were accepted for the cases of choice of semi detached family house and terrace family house because their estimates were not significant at 5%. This implies that there is no significant relationship between these socio economic characteristics and choice of both semi detached family house and terrace family house in the study area.

Test of Research Hypothesis 2: There is no significant relationship between locational variables and housing choice

Table 3: Test of Significance between Locational Variables and Housing Choice

	Rooming House	Single Detached Family House	Duplex	Flats	Semi Detached Family House	Terrace Family House
Variables	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
Distance to Medical Facilities	Reject Null Hypothesis	Reject Null Hypothesis	Accept Null Hypothesis	Reject Null Hypothesis	Reject Null Hypothesis	Reject Null Hypothesis
Distance to Place of Work	Reject Null Hypothesis	Reject Null Hypothesis	Reject Null Hypothesis	Reject Null Hypothesis	Accept Null Hypothesis	Reject Null Hypothesis

Source: Computed from Researcher’s Field Survey, 2012.

This hypothesis was tested at 5% level of significance ($t = \pm 1.96$). For rooming house the null hypothesis that states that there is no significant relationship between locational variables and housing choice was rejected for both distance to medical facilities and distance to place of work in the choice of rooming house, single detached, flats and terrace family house in lokoja as their estimates were significant at 5%. This implies that locational variables such as distance to medical facilities and distance to place of work have significant relationship with the choice of these housing types in the study area. For duplex, the null hypothesis was accepted for distance to medical facilities

because its estimate was not significant at 5% while it was rejected in the case of distance to place of work because its estimate was significant.

5.0 Conclusion

The finding of the study shows that different factors affect the choice of residential houses in Lokoja Kogi State Capital. High cost of housing, distance to health and medical facilities and distance to place of work increased the preference of traditional compound in the study area. Given the importance of housing in economic and social development, the following are recommendations are made

- i. The Government should be more involved in housing delivery by subsidizing the cost of building materials so that the cost of owning will be affordable.
- ii. Government should improving housing policies and regulations to make it more feasible for the poor to own dwelling units of their choice.
- iii. Government should urgently enhance the provision and maintenance of social facilities and infrastructure in the study area as this will have a significant effect on housing choice.

References

- Ademiluyi, I. A. (2010). Public Housing Delivery Strategies in Nigeria: A Historical Perspective of Policies and Programmes. *Journal of Sustainable Development in Africa (Volume 12, No.6)*
- Sikiru J. B. , Abdulrazaq I. U. and Luqman A. S.(2013). An economic analysis of determinants of house rents in the UNIVERSITY environment. *European Scientific Journal* . vol.9, No.19. pp 99-111
- Michelson, W. (1975); *Environmental Choice, Human Behaviour and Resitial Satisfaction*, New York: Oxford University Press. 1 - 18.
- Freeman, L. (1998),"Interpreting the Dynamics of Public Housing: Cultural and Rational Choice Explanations". *Housing Policy Debate*.Vol.9 No.2, 323-345.
- Megbolugbe, I.F. (1991) Hedonic Indices and Housing Programme Benefits, *Urban Studies*, Vol. 28, No.5, 773-781.
- Tatsiramos, C. (2006); Residential mobility and housing adjustment of older households in Europe. IZA Discussion paper 2435 retrieved from ftp.iza.org/dp2435.pdf on 26th September, 2012.
- Aribigbola, A. (2008): Housing policy formulation in developing countries; Evidence of program implementation from Akure, Ondo State, Nigeria. *Journal of Human Ecology* 23(2), 125 - 134.
- Scot, P. J. (2011): An analysis of judgment bias in housing choice. Unpublished thesis submitted for the degree of Doctor of Philosophy at the University of Cambridge. November, 2011.

Yamane, T. (1967): *Elementary sampling theory*. Engle cliffs, New Jersey: Prentice - Hall, Inc.

Olatubara, C.O. (2008). *The Dynamics of Households. Residential Choice in Nigeria: The Fifteenth Faculty Lecture.*
Faculty of the Social Sciences, University of Ibadan, Ibadan, Nigeria.

Awoyemi T. T., Obayelu O. A. and Opaluwa H. I. (2011) Effect of distance on utilization of health care services in rural Kogi State, Nigeria. *J. Hum Ecol*, 35(1): 1-9