

Analysis Of Factors Influencing Choice Of Residential Location In Minna, Nigeria

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Abstract: The concern about the quality of urban life in cities has led to an increasing concern amongst planners and policy makers on how to measure those variables that influence the household choice of residential location among the residents of Minna. The study examines the factors that determine resident's choice of location in Minna, Nigeria, by investigating these factors responsible for household choice of residential location. In achieving this, the research methodology adopted Multi Stage sampling technique for cluster sampling. Simple Random Sampling was then used in each cluster for the administration of 384 questionnaires in the study area in order to assess the various attributes in choice of location. The data obtained was analyzed using the Statistical Package for Social Science (SPSS) and MS Excel, thereafter, presented graphically by the use of charts and tables. From the study, it was noted that physical/environment factor, facilities and amenities, security factor and community/socio-economic factor influences choice of residential neighbourhood at a reasonable extent with a Mean Weighted Value (MWV) of 2.88. It shows the extent these factors influence choice of neighbourhood in the various densities of low, medium and high densities. Therefore, the study concludes that among all factors measured, housing and environmental quality within the physical and environmental factor influences choice of location among the residents of HDNs and MDNs, while, building aesthetic, housing/environmental quality, nature of neighbourhood layout and neighbourhood density influences choice in LDNs.

Keywords: Accessibility, Neighbourhood, Environmental quality and Neighbourhood Density.

I. INTRODUCTION

In choosing residential location, according to economic theory, individuals try to maximize the utility from their residential unit, area location characteristics, distances to various desired activity locations considering budget and other constraints (Prashker *et al.*, 2008). However, the complexity of people's lives makes choice of location a decision that is influenced by a variety of factors such as physical and environmental factors, facilities and services, public security and community/socio-economic factors (Beamish, Goss and Emmel, 2001).

Residential location choice in cities will be constraint if the locations of the factors considered for choice of residence are well planned. The fact that available infrastructural

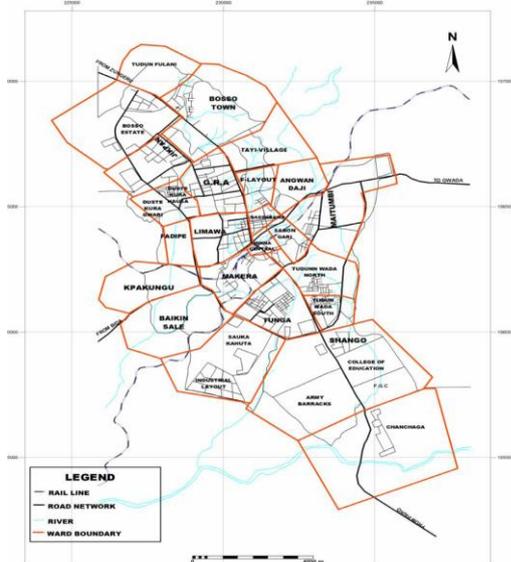
facilities do not increase at the same rate with its demand, further compounds the situation which has been the situation in Nigeria's urban centres because as cities grow in size and population, demand on choice of residential location increases (Ubani *et.al*, 2017).

In planning, provisions are made for similar facilities and amenities without taking into consideration these factors as different people have different factors that influence their decision to reside in an area, thereby, bringing together different income groups in the same location. It is important to note that choice of residential location are, in many ways limited as it often depend on the type of housing available in a particular location at a particular time. Therefore, there is need for a study to be carried out on this course so that the factors influencing choice of location could be understood for better

planning by policy makers. The aim of this study is to examine the factors influencing choice of residential location in Minna. In order to achieve this, attempt was made by investigating these factors for household choice of location in the study area.

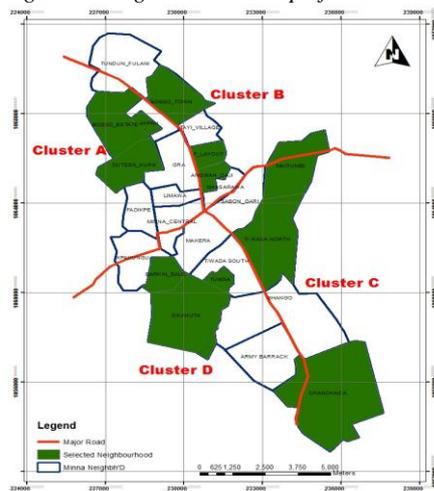
THE STUDY AREA

Minna is a city in west central Nigeria. It is the capital of Niger State, one of Nigeria's 36 federal states, and is the headquarters of Chanchaga Local Government Area with an estimated population of 201,429 people (2006 census) making it the biggest city in Niger State. With the continuous migration of people into the state capital, the town has grown from its initial population of census 2006. The National Population Census 2006 projected to 2017 at an annual growth rate of 2.3% putting the population of the town at 201,429 and 268,339 respectively with 24 neighbourhoods. Minna is the administrative headquarters of Niger State; Nigeria and is located at 9°62'N latitude and 6°55'E longitude situated at 243meters above sea level.



Source: Department of Urban and Regional Planning, FUT Minna, 2018.

Figure 1: Neighbourhood Map of Minna



Source: Department of Urban and Regional Planning, FUT Minna, 2018.

Figure 2: Map of Minna showing Neighbourhoods in Clusters

II. LITERATURE REVIEW

THE CONCEPT OF CHOICE

Broadly speaking, the term 'choice' elicits notions of responsibility, freedom and autonomy. However, choice is not devoid of limits and constraints. In simple terms, having a choice implies having the ability to pick from alternatives, even if the options are imperfect solutions. It involves decision making and can include judging the merits of multiple options and selecting one or more of them.

Brown and King (2005) discuss choice as a concept in the housing context, drawing on Elster's (1986) theorising of rationality, which entails the interaction of three key dimensions - one's beliefs, desires and information sets. Tying these three dimensions together, Elster (2000) states that rational choice is the principle that "people make the most out of what they have." Brown and King (2005) highlight the importance of this definition, as it emphasises the subjective nature of rationality, which is contingent on the decision-makers' beliefs, desires and access to information. Choice is subject to numerous constraints.

SOCIO ECONOMIC AND ETHNIC DETERMINANTS OF RESIDENTIAL LOCATION CHOICE

The type of people living in the community and household socio economic status can play a prominent role in people's residential choices. Many past studies have shown that social stratification and homogeneity is important to residential location choices (Sirgy., 2005). Studies have also shown that as households makes residential choice within budgetary constraints, social connection is considered. Studies found social connection and prestige as an important determinant of household residential location.

Gou and Bhat (2006) showed that in the United State "households tend to locate in an area with a high proportion of other households with a similar household structure and household size as their own. Winstanley et al. (2002) showed that familiarity and social connections influences residential location choice. They claimed that many people are reluctant to leave familiar and convenient surrounding to which they have grown accustomed and became attached. Walker (2007) examined a lifestyle impact on location decision of 611 individuals in Portland Oregon. Their study found that lifestyle played a vital role in residential location. However, they reported that the lifestyle groups showed an interesting mix of preferences for both urban and suburban neighbourhood and high local shopping which could be linked to a mixed use urban neighbourhood. This may not always be the case.

EMPLOYMENT AND RESIDENCE LOCATION CHOICE

The results of the factors which explore the role of employment in residential location decision of households have been contended. While many scholars showed that

employment play a prominent role in household residential location, others contend that the proximity of employment area to households' residency discourage residential mobility in metropolitan areas.

Yan Song et al., (2011) explored the role of employment sub centers in determining residential location decisions. They estimated discrete choice models of residential location decisions: conditional logit models and heteroscedastic logit models with both the full choice set and sampled choices. They found that access to certain employment sub centers, measured in terms of generalized cost, is an important determinant of households' residential location decisions.

III. MATERIALS AND METHODS

The study employed the use of both primary and secondary sets of data. The primary data involves the factors responsible for choice of residence location. That is, the physical, social, economic and environmental factors that influence the choice of residential location. Meanwhile, the secondary data include literatures from various authors relating to the subject matter. The unit of measurement for the study is the "household", hence, the projected household number is 27,613. The sample size for the study is 379, which was derived from the sample population using Sallant and Dillmann (1994) sample size formula. A total of 379 questionnaires was administered and returned completed.

Therefore, a total of 379 questionnaires was administered and returned completed using multistage sampling technique. Minna was divided into four clusters using the four major routes that lead to Minna. In each of the cluster, one neighbourhood of low, medium, and high density was selected; hence, a total of twelve neighbourhoods were selected for the study. Consequently, simple random technique was used to select the respondents for the study. The neighbourhoods are Bosso estate, Jikpan, Dutsen Kura, Angwan Daji, F-lay out, Bosso town, Tudun Wada North, Chanchaga, Maitumbi, Sauka kahuta, Barikin Sale and Tunga.

IV. RESULTS AND DISCUSSION

This section analyzes and presents the data collected through the administration of questionnaires carried out for the purpose of this research.

Table 1.1 below shows the overall aggregate of the factors influencing choice of residential location in the selected High Density Neighbourhoods (HDN). Looking at these scores, the overall aggregate for the factors responsible for choice of location in HDN was moderately considered as Barikin Sale recorded Mean Weighted Value (MWV) of 2.62 (moderate), Angwan Daji has 2.56 score, Jikpan 2.52 and Maitumbi recording the lowest score with 2.46 (low). This implied that these factors were considered at a reasonable extent amongst the four selected neighbourhoods with an aggregate score of 2.54.

Factors	Neighbourhoods			
	Barikin Saleh	Maitumbi	Angwan Daji	Jikpan
Physical Factor	2.40	2.30	2.48	2.45
Infrastructural Factor	3.36	3.32	3.01	2.96
Security Factor	2.48	2.25	2.54	2.63
Community Factor	2.25	2.08	2.19	2.02
Aggregate	2.62	2.46	2.56	2.52
Remark	Moderate	Low	Moderate	Moderate

Source: Author's Fieldwork, (2017)

Table 1.1: Factors Influencing Choice of Location in High Density Neighbourhoods

FACTORS INFLUENCING CHOICE OF LOCATION IN MEDIUM DENSITY NEIGHBOURHOODS

The extent to which the physical/environmental, infrastructural, security and community factors influences residence choice of location in the Medium Density Neighbourhoods (MDN) indicated that the factors were moderately considered (Table 1.2) with Sauka Kahuta having the highest value with a score of 2.96. Dutsen Kura, Chanchaga and Bosso Town had an aggregate Mean Weighted Value of 2.95, 2.88 and 2.84 respectively. This implies that in the MDNs, these factors were considered moderately in choosing residential locations.

Factors	Neighbourhoods			
	Chanchaga	Sauka Kahuta	Bosso Town	Dutsen Kura
Physical Factor	3.02	3.26	2.99	3.33
Infrastructural Factor	3.36	3.22	3.01	2.96
Security Factor	2.76	2.82	2.83	2.91
Community Factor	2.39	2.55	2.43	2.61
Aggregate	2.88	2.96	2.84	2.95
Remark	Moderate	Moderate	Moderate	Moderate

Source: Author's Fieldwork, (2017)

Table 1.2: Factors Influencing Choice of Location in Medium Density Neighbourhoods

FACTORS INFLUENCING CHOICE OF LOCATION IN LOW DENSITY NEIGHBOURHOODS

Table 1.3 below shows the aggregate of the factors considered in choice of residential location in Low Density Neighbourhoods. The result indicated that Tunga had the highest aggregate score with MWV of 3.27 (moderate), followed by Tudun Wada with a score of 3.18, Bosso Estate with 3.17 and F-Layout with an aggregate of 3.14 (moderate). Given to the high scores obtained, though some neighbourhoods had a low score, these factors were reasonably considered in choosing a location by the residents.

Factors	Neighbourhoods			
	Tudun Wada North	Tunga	Bosso Estate	F-Layout
Physical Factor	3.85	3.72	3.52	3.83
Infrastructural Factor	3.49	3.37	3.25	3.38
Security Factor	2.98	2.61	3.01	2.65
Community Factor	2.39	3.39	2.88	2.68
Aggregate	3.18	3.27	3.17	3.14

Remark	Moderate	Moderate	Moderate	Moderate
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Source: Author's Fieldwork, (2017)

Table 1.3: Factors Influencing Choice of Location in Low Density Neighbourhoods

FACTORS RESPONSIBLE FOR CHOICE OF NEIGHBOURHOOD IN MINNA

The general aggregate of physical/environment factor, facilities and amenities, security factor and community/socio-economic factor influencing choice of residential location in Minna based on densities is indicated in Table 4.4. It was revealed that Low Density Neighbourhoods (LDN) has the highest value recording an aggregate Mean Weighted Value (MWV) of 3.19(moderate), followed by Medium Density Neighbourhoods (MDN) with a MWV of 2.90(moderate) and HDNs recording a MWV of 2.54(moderate).

Amongst the LDNs, Tunga recorded the highest with a score of 3.27 which was moderately considered by residents and F-Layout being the least with a MWV of 3.14. In the MDNs, Sauka Kahuta recorded the highest score with MWV of 2.96(moderate), slightly followed by Dutsen Kura with 2.95 and Bosso Town being the least with a MWV of 2.82. This implies that these factors were considered at a reasonable extent by residents in MDNs.

Meanwhile in the High Density Neighbourhoods (HDN), Barikin Saleh recorded the highest with 2.62(moderate), followed by Angwan Daji with 2.56, Jikpan with 2.52 and Maitumbi with 2.46(low). Therefore, it implies that these factors were also moderately considered by residents in HDNs. In general, the three densities of low, medium and densities considered the factors earlier mentioned moderately with an aggregate MWV of 2.88.

Density	Neighbourhood	CNI	Remark
High Density	Barkin Saleh	2.62	Moderate
	Maitumbi	2.46	Low
	Ang. Daji	2.56	Moderate
	Jikpan	2.52	Moderate
	H.Density	2.54	Moderate
Medium Density	Chanchaga	2.88	Moderate
	Sauka Kahuta	2.96	Moderate
	Bosso Town	2.82	Moderate
	Dutsen Kura	2.95	Moderate
	Medium Density	2.90	Moderate
Low Density	Tudun Wada North	3.18	Moderate
	Tunga	3.27	Moderate
	Bosso Estate	3.17	Moderate
	F-Layout	3.14	Moderate
	Low Density	3.19	Moderate
Aggregate	2.88	Moderate	

Source: Author's Fieldwork, (2017)

Table 1.4: Factors Influencing Choice of Neighbourhood Index in Minna.

V. SUMMARY OF FINDINGS

The study noted that physical/environment factor, facilities and amenities, security factor and community/socio-economic factor as earlier mentioned influences choice of residential neighbourhood at a reasonable extent with a Mean Weighted Value (MWV) of 2.88. It shows the extent these factors influence choice of neighbourhood in the various densities of low, medium and high densities. The Low Density Neighbourhoods (LDN) has the highest value recording an aggregate MWV of 3.19(moderate), followed by Medium Density Neighbourhoods (MDN) with a MWV of 2.90(moderate) and High Density Neighbourhoods (HDN) recording a MWV of 2.54(moderate).

The study also noted that physical/environment factor, facilities and amenities, security factor and community/socio-economic factor as earlier mentioned influences choice of residential neighbourhood at a reasonable extent with a Mean Weighted Value (MWV) of 2.88. It shows the extent these factors influence choice of neighbourhood in the various densities of low, medium and high densities. The Low Density Neighbourhoods (LDN) has the highest value recording an aggregate MWV of 3.19(moderate), followed by Medium Density Neighbourhoods (MDN) with a MWV of 2.90(moderate) and High Density Neighbourhoods (HDN) recording a MWV of 2.54(moderate).

VI. CONCLUSION

Therefore, the study concludes that among all factors measured, housing and environmental quality in the physical and environmental factor influences choice of location among the residents of HDNs and MDNs, while, building aesthetic, housing/environmental quality, nature of neighbourhood layout and neighbourhood density influences choice in LDNs. For the infrastructure factor, regular electricity and regular public water supply was responsible for choice of location amongst the residents of the 12 neighbourhoods. However, in the LDNs, good drainage system is a determinant factor while effective solid waste management and good accessibility influences the choice of neighbourhood in MDN and LDNs.

The study also concluded that low burglary rate could be a determinant factor for choice of location in the study area. Meanwhile, household income/social status and good place for children upbringing is a socio-economic factor responsible for choice of location in MDNs and LDNs.

VII. RECOMMENDATION

Neighbourhoods should be provided with adequate basic infrastructure and services through proper designed policies. The provision and restoration of these infrastructures will enhance proper development in the city. Such infrastructure should also be provided at the fringes. Thus, when evenly distributed, it will improve proper development in the community. Since the availability and condition of infrastructure and the factor responsible for choice of neighbourhood differ with densities, town planners should

also take in to consideration the factors for each density when planning for new neighbourhoods.

From the study, it was revealed that virtually in all the neighbourhoods, there was no street lighting. Therefore, the government should provide this essential service and improve the structural quality of the existing ones. Although, residents are neither satisfied nor satisfied with security in their domain, neighbourhood vigilante groups should be encouraged to work in collaboration with the police in securing lives and property of the people.

In the same vein, infrastructure and security factors that influence choice of location should be enhanced by improving on the quality and provision of these factors across all densities of the neighbourhood.

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