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# Socio-Demographic Predictors of Housing Satisfaction among Residents of Public Housing Estates in Minna, Nigeria

<sup>1</sup>Ibelieve Isaac, <sup>2</sup>Jerry Habila, <sup>3</sup>Hafiz Salami, <sup>1</sup>Yusuf Ibrahim

<sup>1</sup>Department of Urban and Regional Planning, Federal University of Technology, Minna, Nigeria.

<sup>2</sup>Department of Urban and Regional Planning, Federal Polytechnic, Nekede, Imo State, Nigeria.

<sup>3</sup>Department of Urban and Regional Planning, University of Ibadan, Nigeria.

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## ABSTRACT

The importance of housing to man cannot be overemphasized. It predicts spiritual, psychological and physical sense of achievement of social status, security, privacy, and convenience. However, most housing interventions in Nigeria are carried out without adequate consultation/participation of the beneficiaries, thereby creating housing dissatisfaction. This study aimed at investigating the socio-demographic predictors of residents' satisfaction with public housing estates in Minna; and the objectives are to examine the socio-economic and demographic conditions of the residents of the housing estates and to investigate the relationship between the socio-demographic attributes of the residents and their level of housing satisfaction. A systematic random sampling technique was adopted to administer 297 questionnaires to residents of public housing estates in Minna, Nigeria. Data analysis was conducted with the aid of the Statistical Package for Social Sciences. The majority of the households have a size of 4-9 persons. The respondents expressed dissatisfaction with the location of their kitchens, the landscape elements, wastewater drainage and condition/adequacy of potable water supply. It also revealed that there is a statistically significant relationship between socio-demographic attributes and housing satisfaction among residents of public housing estates in the study area ( $R^2 = .988$ ;  $df = 6$ ;  $Sig. = .000$ ). There is, therefore, the need to provide potable water and wastewater management and enact and enforce regulations to control household size in the public housing estates in Minna. There is also the need to study the impact of homeownership status on housing satisfaction in the study area as this study did not cover that.

## **INTRODUCTION**

Housing is a basic need of man because it is one of the basic requirements for the survival of man. The importance of housing is seen in Maslow's hierarchy of needs where housing is regarded as the second most important need of man after food. Onibokun (1982) observed that the providers of public housing in Nigeria have nurtured the false impression that the urban poor are choiceless consumers of housing whose only desire is to obtain shelter. This creates a situation of mismatch between the expectations of the occupants and the predicted success of the housing by the built environment professionals and policymakers.

Housing satisfaction is seen as the difference between residents' expected housing conditions and the actual condition of the housing they occupy. Amerigo (2002) noted that the concept of housing satisfaction can be viewed from two perspectives, namely from the viewpoint of emotional measurement and from the viewpoint of perception. Kellekci and Berkoz (2006) argued that the emotional approach to the concept of housing satisfaction invokes a reflection of sentiments about what housing satisfaction entails and how it can be created. On the other hand, the perceptual concept of housing satisfaction takes into cognisance the disparity between the current housing condition and users' expected housing condition. Housing satisfaction is a reflection of the response of residents to the environment in which they live and it is extremely dependent on the attitude of the resident towards the quality of the housing environment. This is in line with the view of Olatubara and Fatoye (2006) who viewed housing satisfaction as a reflection of the extent to which residents perceive that their current dwelling unit helps them in the attainment of their goals. Thus, the evaluation of housing satisfaction is necessarily a post-occupancy performance evaluation study. The importance of evaluating the degree of occupants' satisfaction with their housing environment can never be overemphasized. To this end, this study attempts to answer two interrelated questions. Firstly, this study examines the extent to which households' socioeconomic conditions affect their level of satisfaction within public housing estates. Secondly, an evaluation of the role of households' demographic characteristics in shaping residential satisfaction among the occupants of public housing estates is undertaken.

### **Aim and Objectives**

The aim of this study is to investigate the socio-demographic predictors of residents' satisfaction with public housing estates in Minna. To achieve this aim, the objectives are to:

- i. Appraise the socioeconomic conditions of the residents of public housing estates in Minna
- ii. Examine the demographic attributes of households in the study area

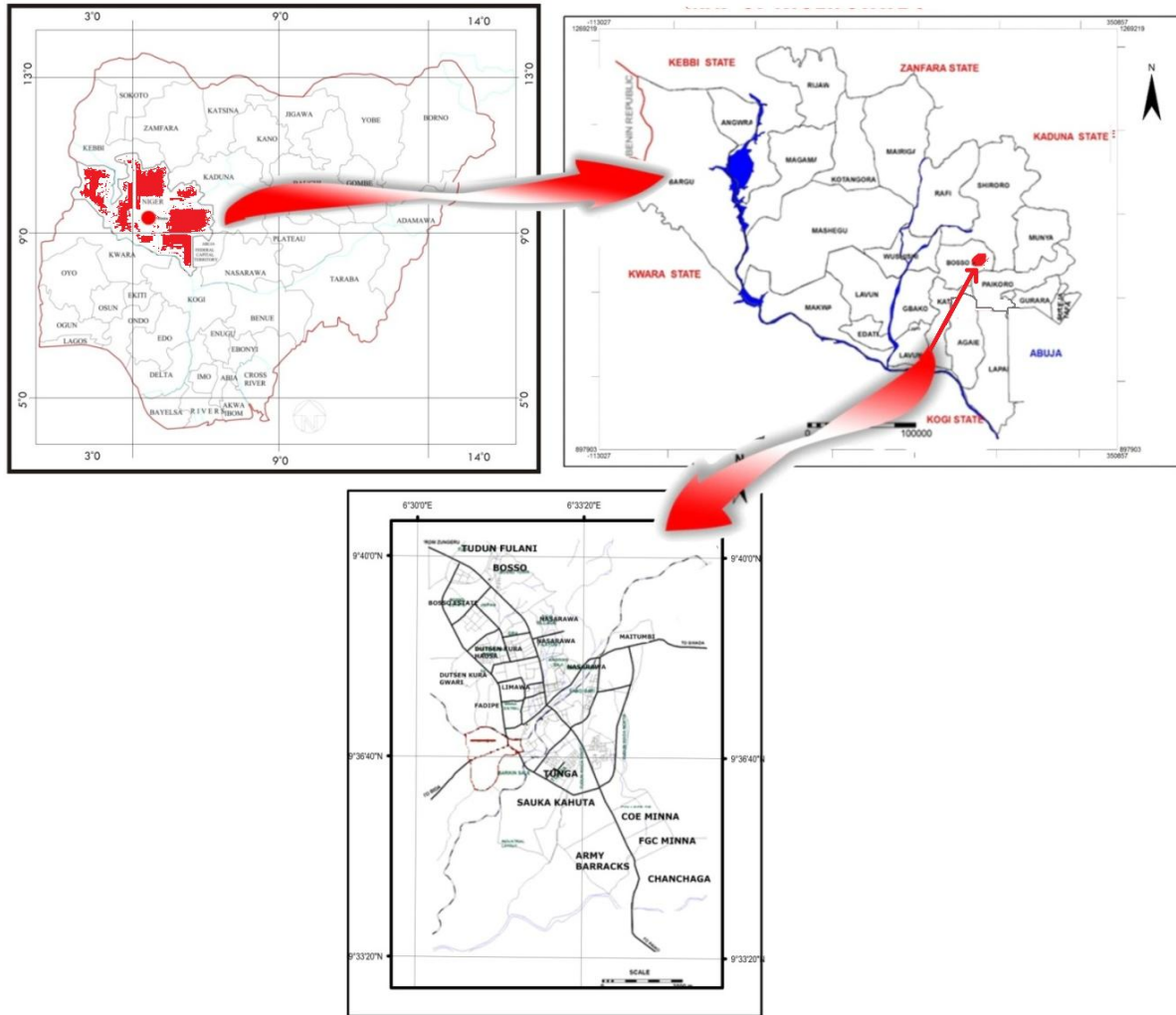
- iii. Determine the relationship between socio-demographic attributes and housing satisfaction among the residents of public housing estates in Minna

### **Hypothesis**

H<sub>0</sub>: There is no statistically significant relationship between the socio-demographic characteristics of the residents and their satisfaction with public housing estates in Minna

### **The Study Area**

Minna is originally a Gbagyi settlement located in North-Central Nigeria. The first residents of the town built their houses on the Paidia hills, located in the eastern part of the present-day Minna. However, with the emergence of colonial masters and railway in the town, Minna is now a multi-ethnic city. The town is located at Latitude 9°37' North and Longitude 6°33' East. It is made up of two Local Government Areas, namely Bosso and Chanchaga. Max Lock (1979) reported that Minna has a landmass of 884 hectares. Minna is approximately 145km to Abuja by road (Popoola, Jinadu, Sanusi, Adeleye and Odumosu, 2016). Urban sprawl at the hinterlands of the city has made Minna to engulf (and thereby include) fringe settlements such as Maitumbi, Barikin Sale, Maikunkele, Fadikpe, Gurara, and Gbeganu. Minna also has a number of public housing estates to cater for the housing needs of the residents. These housing estates include Talba Housing Estate, F-Layout, Tunga Low-Cost, M. I. Wushishi Housing Estate, Federal Mortgage Bank of Nigeria/Sea Mountain Housing Estate and Bosso Estate. The location of Minna in Nigeria is shown in Figure 1.



**Figure 1:** Location of Minna in Nigeria  
**Source:** Authors (2020)

## LITERATURE REVIEW

Man's requirement of shelter, privacy, security, and comfort is primarily satisfied through the housing in which s/he lives (Jiboye, 2014). Ibem and Amole (2010) also noted that adequate and decent housing is also linked to health and quality of life outcomes as well as the productivity of an individual. Aigbavboa and Thwala (2011) maintained that it is extremely important to evolve and adopt better housing design and construction techniques that are capable of improving the physiological and psychological wellbeing of the residents owing to the fact that housing comprises a foremost component in the built environment of cities. However, it is evident that most public housing programmes are implemented without adequate consideration of users' participation.

Globally, several studies have been carried out to evaluate residents' satisfaction with public housing estates. Mohit, Ibrahim, and Rashid (2010) examined how the occupancy

of newly constructed public housing estates shapes occupants' satisfaction in Malaysia. In South Africa, Aigbavboa and Thwala (2012) investigated the link between low-income status and housing satisfaction. A similar study was carried out in Indonesia by Aulia and Ismail (2013) in Medan city. Aigbavboa and Thwala (2013) also analyzed the impacts of housing subsidy on housing satisfaction in South African public housing estates. Husin, Nawawi, Ismail, and Khalil (2015) appraise the links between the safety performance of low-cost housing estates in Malaysia and occupants' satisfaction. Ahn and Lee (2015) assessed the impacts of old age single person homeownership on residential satisfaction in the United States.

In Nigeria, Aduwo, Ibem, and Opoko (2013) investigated the role of residential dissatisfaction in housing alteration among residents of public housing estates in Lagos. Inah, Yaro, Agbor, and Ukene (2014) measured the relationship between urban poverty and public housing satisfaction in Calabar. Jiboye (2014) evaluated the relationship between tenant-occupiers' socioeconomic attributes and housing satisfaction in public housing estates in Lagos. Waziri, Yusuf, and Rahim (2014) investigated the relationship between age and housing satisfaction in Abuja. Dimuna's (2019) study in Benin City approached the subject from the perspective of satisfaction with neighbourhood facility planning. Abdu, Bichi, Umar, and Nadikko (2019) assessed housing satisfaction among residents of police barracks in Gombe. However, it is worrisome to note that the idea of socio-demographic determinants of housing satisfaction has received little (if any) research attention. Therefore, this study seeks to cover this identified gap in the knowledge of housing satisfaction, especially with reference to Nigeria.

## **METHODOLOGY**

This study utilized both primary and secondary data in order to achieve its goal. A multi-stage sampling approach was adopted for the study. At the first stage, cluster sampling was used to sample three housing estates from the long list of housing estates in Minna. These are the Talba Housing Estate (500 housing units), M. I. Wushishi Housing Estate (500 housing units) and Tunga Low-Cost (320 housing units). This summed up to 1300 housing units. For ease of data collection, each housing unit was considered as an independent household. Therefore, questionnaires were administered at the households' level. Thereafter, at the second stage, the stratified random sampling technique was used to administer 297 copies of questionnaires to the respondents in the study area. This sample size was arrived at using the sample size determination technique obtained from Taherdoost (2017). However, only 214 questionnaires were successfully retrieved and used for this research (that is retrieval rate was 72.05%). The choice of stratified random sampling technique was basically to divide the population of respondents into two gender-based strata (that is, males and females) to ensure equal gender representation in the sample. Structured questionnaires were administered to each strata of the population to determine their degree of housing satisfaction. Part of the questionnaire for this study was adapted from Ibem (2011) and Ogunde (2013). Both descriptive and inferential statistical

analysis techniques were adopted for the study and the analysis was conducted with the aid of Statistical Package for Social Sciences (SPSS).

## **RESULTS AND DISCUSSION**

### **Demographic Characteristics**

The demographic attributes of the respondents are presented in Table 1. The majority of the respondents are males (64.6%), while only 35.4% are females. It should be noted that the questionnaires were administered to household heads (and their proxies, where applicable). This result, therefore, shows the gender dimension of household headship in public housing estates in the study area. More so, the dominance of male respondents may be linked to the dominant socio-cultural and religious belief of Northern Nigeria where men are seen as superior (and thus, are responsible for addressing 'strangers').

In terms of age, none of the respondents reported that they are below 18 years old. In fact, only about 13.4% of the respondents are below 38 years old. Consequently, 86.6% of the respondents are 38 years and above and those with the age brackets of 48-57 years form the majority (35.0%). The implication of this is that the respondents of this study are adults; they are therefore assumed to be qualified to offer opinions on behalf of the households of interest.

The result of the marital status of the respondents indicates that up to 70% are married and none is single. This implies that they have formed independent households with two or more residents. In fact, a further probe indicated that the household size in the estates is between 4-9 persons per household. None of the households are occupied by less than four persons and none was reportedly inhabited by more than nine persons. However, a breakdown indicated that 63.6% of the households are inhabited by 4-6 persons while 36.4% are inhabited by 7-9 persons. In essence, more than 36% of the households are experiencing overcrowded housing conditions since their household size is above the Nigerian national average of five persons per household.

In terms of the socioeconomic characteristics of the respondents, the majority (48.1%) are civil servants, and 22.2% are traders. It was further reported by 14.8% of the respondents that they are farmers, while another 14.8% indicated that they are engaged in other activities such as security guards. Only about 0.3% of the respondents earn less than ₦30,000 monthly, while about 14.8% earn above ₦60,000. This implies that the residents of the public housing estates in Minna earn between ₦30,000 and ₦60,000. It has been reported by Robertson *et al.* (2011) the middle-income households in Nigeria earn between ₦70,000 and ₦100,000 monthly. This shows that the residents of the public housing estates in Minna are low-income earners.

**Table 1: Demographic characteristics**

Demographic features	Frequency	Percentage
<b>GENDER</b>		
Male	192	64.6
Female	105	35.4
<b>AGE</b>		
<18years	0	0.0
18-27years	20	6.7
28-37years	20	6.7
38-47years	87	29.3
48-57years	104	35.0
58years and Above	66	22.2
<b>MARITAL STATUS</b>		
Single	0	0.0
Married	208	70.0
Divorced	0	0.0
Separated	65	21.9
Widowed	24	8.1
<b>HOUSEHOLD SIZE</b>		
1-3 persons	0	0.0
4-6 persons	189	63.6
7-9 persons	108	36.4
10-12 persons	0	0.0
More than 12 persons	0	0.0
<b>OCCUPATION</b>		
Artisan	0	0.0
Civil servant	143	48.1
Farmer	44	14.8
Trader	66	22.2
Others	44	14.8
<b>INCOME</b>		
<N30,000	1	.3
N30,000-40,000	170	57.2
N41,000-N50,000	82	27.6
N51,000-N60,000	44	14.8
60,000 and above		

**Source:** Authors' Field Survey (2020)

### **Satisfaction with the Estate and Structural Elements of the dwelling units**

Table 2 indicates that although more than 50% of the residents are satisfied with their dwelling units, more than 64% expressed neutral feelings about their level of satisfaction with the general condition of the estates. More so, 64.3% of the respondents are satisfied with the number of rooms available to their households and 56.2% are satisfied with the size of rooms. This variation in satisfaction between the number and size of rooms is an indication that much is not always better; though the rooms may be many, the sizes may

be substandard. The residents also expressed dissatisfaction with the location of kitchens, landscaping, drainage system and the condition of water supply.

**Table 2:** Satisfaction with the estate and structural elements of the dwelling units

How satisfied are you with:	Extremely satisfied	Satisfied	Neutral	Dissatisfied	Extremely dissatisfied
This estate generally	-----	106(35.7%)	191(64.3%)	-----	-----
This apartment	65(21.9%)	149(50.2%)	82(27.6%)	1(0.3%)	-----
Number of rooms	-----	191(64.3%)	63(21.2%)	43(14.5%)	-----
Sizes of rooms	43(14.5%)	167(56.2%)	68(22.9%)	19(6.4%)	-----
Height of ceilings	109(36.7%)	126(42.4%)	20(6.7%)	42(14.1%)	-----
Position of electricity outlets	43(14.5%)	129(43.4%)	1(0.3%)	124(41.8%)	-----
Operation of electric fittings	20(6.7%)	127(42.8%)	132(44.4%)	18(6.1%)	-----
The design of the streets	43(14.5%)	106(35.7%)	66(22.2%)	82(27.6%)	-----
The design of toilets and bathrooms	65(21.9%)	151(50.8%)	61(20.5%)	20(6.7%)	-----
The number of toilets and bathrooms	89(30.0%)	82(27.6%)	106(35.7%)	20(6.7%)	-----
Performance of the roof	65(21.9%)	150(50.5%)	82(27.6%)	-----	-----
The size of the plot	65(21.9%)	86(29.0%)	45(15.2%)	101(34.0%)	-----
The kitchen design	-----	-----	152(51.2%)	127(42.8%)	18(6.1%)
The kitchen location	-----	68(22.9%)	109(36.7%)	120(40.4%)	-----
Location of living area and dining space	65(21.9%)	169(56.9%)	45(15.2%)	18(6.1%)	-----
Operation of plumbing fittings	65(21.9%)	42(14.1%)	145(48.8%)	44(14.8%)	1(0.3%)
The position of the doors	-----	100(33.7%)	110(37.0%)	44(14.8%)	43(14.5%)
The width of windows	-----	144(48.5%)	64(21.5%)	65(21.9%)	24(8.1%)
Landscaping	-----	86(29.0%)	107(36.0%)	19(6.4%)	82(27.6%)
Potable Water supply	-----	89(30.0%)	107(36.0%)	19(6.4%)	82(27.6%)
Drainage system	-----	24(8.1%)	104(35.0%)	18(6.1%)	151(50.8%)
Refuse disposal system	43(14.5%)	130(48.3%)	24(8.1%)	18(6.1%)	82(27.6%)

**Source:** Authors' Field Survey (2020)

### Socio-demographic Characteristics and Occupants' Satisfaction

The multiple regression analysis was used to test the hypothesis of this research. The result in Tables 3a and 3b indicates that there is a statistically significant relationship between socio-demographic characteristics of the occupants and their level of housing satisfaction in Minna ( $R^2 = .988$ ;  $df = 6$ ;  $Sig. = .000$ ). Hence, there is no enough statistical evidence to accept the hypothesis that there is no statistically significant relationship between the socio-demographic characteristics of the residents and their satisfaction with public housing estates in Minna. Therefore,  $H_0$  is rejected and  $H_1$  is



accepted. In other words, there is a statistically significant relationship between the socio-demographic characteristics of the residents and their satisfaction with public housing estates in Minna. It is also important to state that the relationship is strong and positive.

**Table 3a:** Relationship between socio-demographic characteristics and occupants' satisfaction with public housing estates in Minna

Model Summary <sup>b</sup>									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.994 <sup>a</sup>	.989	.988	.05151	.989	4234.260	6	290	.000

a. Predictors: (Constant), Monthly Income, Marital Status, Occupation, Age, Household Size, Gender

b. Dependent Variable: General Satisfaction with the Estate

**Source:** Authors' Field Survey (2020)

**Table 3b:** Relationship between socio-demographic characteristics and occupants' satisfaction with public housing estates in Minna

ANOVA <sup>b</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	67.399	6	11.233	4234.260	.000 <sup>a</sup>
	Residual	.769	290	.003		
	Total	68.168	296			

a. Predictors: (Constant), Monthly Income, Marital Status, Occupation, Age, Household Size, Gender

b. Dependent Variable: General Satisfaction with the Estate

**Source:** Authors' Field Survey (2020)

## CONCLUSION AND RECOMMENDATIONS

Housing is an integral part of human societies and human development. It is one of the primary predictors of the standard of living, wellbeing, and quality of life of people. Housing is, therefore, a basic need which must be satisfied. Good housing condition satisfies the emotional and psychological needs of the occupants. However, the majority of the public housing interventions in Nigeria are apparently conceived and implemented without adequate participation of the beneficiaries. As a result, the housing units constructed and supplied to the end-users do not meet their expectations. This mismatch between the expected housing condition and the actual housing condition of the people explains their levels of housing (dis)satisfaction. This study has revealed residents of public housing estates in Minna are low-income earners who have a household size of 4-9 persons. Furthermore, residents of public housing estates in Minna are satisfied with their

apartments, the number, and sizes of rooms available to their households. However, they are dissatisfied with the location of their kitchens, the landscape elements, wastewater drainage and condition/adequacy of potable water supply. It also revealed that there is a statistically significant relationship between socio-demographic attributes and housing satisfaction among residents of public housing estates in the study area. It is therefore recommended that regulations should be enacted and enforced to control household size in the public housing estates in Minna. More so, concerted measures should be put in place by the government and relevant non-governmental organisations to ensure adequate potable water supply and wastewater management in the estates in the study area. This study did not address the impact of homeownership status on housing satisfaction in the study area. Therefore, it is recommended that further analytical study should be carried out to cover this gap.

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