

Socioeconomic Predictors of Users' Satisfaction with Neighbourhood Facilities in Public Residential Estates in Akure, Nigeria

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The state of neighbourhood facilities in public housing estates play important roles in determining how the residents perceive such facilities. However, when socioeconomic characteristics of users of housing environments are not considered in the planning, it could lead to dissatisfaction with such facilities. Thus, this study aims at evaluating the effects of socioeconomic characteristics on satisfaction with neighbourhood facilities. It adopts a cross-sectional survey of three-hundred and one (301) housing units using structured questionnaire and direct observations in three public housing estates in Akure namely: Ijapo, Alagbaka and Oba-Ile Housing Estates. Data obtained were analyzed using single-factor descriptive analysis, Mean Satisfaction Scoring and Categorical Regression Analysis to examine the effects of socioeconomic factors on users' satisfaction with neighborhood facilities. The findings showed that religious centres had the highest rating in all aspects of the study in the study estates, while fire service station was rated the least. Three of the independent variables significantly explained satisfaction while the model generally predicted satisfaction with neighbourhood facilities in this context. The model explained 34.9% of the variance in the level of satisfaction with Multiple R^2 of 0.349. The study recommended that developers, policy makers, architects and government agencies that manage the housing estates should ensure that, in planning public residential estates, the residents' socioeconomic characteristics should be considered because it can enhance satisfaction particularly as it pertains to neighbourhood facilities.

Keywords: Facilities, Neighbourhood, Public Housing Estates, Satisfaction, Socioeconomic characteristics

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INTRODUCTION

Neighbourhood environments has become an important domain because residents spend a large proportion of their time in neighbourhoods for social interaction, and physical activities (Ma *et al.*, 2018). Thus, neighbourhoods support the lives of residents and enables them to meet their aspirations within the housing environment. Housing has always been of great necessity to man, as it is one of his most important needs (Olotuah & Taiwo, 2013). An integral part of neighbourhoods are the facilities within the neighbourhood, which along with other infrastructure, supports the activities of individuals and the community living within such housing environments. Therefore, due to its potential to enhance liveability in neighbourhood environment, the importance of neighbourhood facilities cannot be disputed. Ma and Haarhoff (2015) asserted that public facilities are critical aspects of neighbourhoods that need to be considered when internationally evaluating cities for liveability. More so, rapid urbanization has put significant pressure on local and state governments on providing urban infrastructural facilities that are intended to improve the quality of urban life (Mohit & Ali, 2016).

Over the years, the urbanized environment of big cities has become the main focus of urban planners, policy makers and numerous researchers have devoted to evaluating housing environment satisfaction as an indicator of citizen's quality of life (Novianto *et al.*, 2016). Therefore, it has become imperative to clarify the present residential environment situation especially in terms of the neighbourhood facilities (Novianto *et al.*, 2016). Fakere and Duke-Henshaw

(2020) posited that neighbourhood satisfaction is largely the lens through which the residents perceive their neighbourhood environments relative to their individual needs, while satisfaction with neighbourhood facilities refers to the way that residents perceive the facilities within their neighbourhoods. These two are interlinked because, the facilities are essentially an integral part of the neighbourhood and cannot be separated from it (Fakere & Duke-Henshaw, 2020).

Residents make their judgments about housing conditions based on their personal needs and aspirations (Hezzrin *et al.*, 2017). This includes how they assess their residential environment especially as it relates to neighbourhood facilities. Neighbourhoods should be provided with such facilities as schools, healthcare centres, police stations, and recreational facilities, fire service stations, religious centres, events centres and shopping centres because they also constitute important neighbourhood facilities in public housing estates (Asiyanbola *et al.*, 2012). A very important factor that affects the quality of life is the residents' satisfaction with their neighbourhood's facilities and services (Iyanda & Mohit, 2016). Thus, satisfaction is generally an indicator of the quality of life (Mohit & Ali, 2016). Housing and residential quality and the satisfaction one derives from them are particularly important (Dimuna & Olotuah, 2019). However, people's behaviours are complicated with various influencing factors such as of social, economic, psychological and natural conditions (Novianto *et al.*, 2016).

The extent to which socioeconomic variables of residents influence the level of satisfaction with

neighbourhood facilities in public housing estates is not well elucidated in literature. Novianto *et al.* (2016) evaluated neighbourhood environments in terms of neighbourhood facilities and urban planning in Japan. Residents' behaviours and preferences were subjectively evaluated using questionnaire survey of 3000 households of younger families located in Kitakyushu City in Northern Kyushu Island, Japan. The study revealed that the residents were largely dissatisfied with safety, while more than 60% of the households achieved their comprehensive wish on living conditions. It contributed some strategies on efficient planning and development of the neighbourhood environment. Furthermore, Lim *et al.* (2017) investigated the relationship between satisfaction with neighbourhood facilities and social trust in urban villages in Kuala Lumpur, Malaysia. The study stems from identifiable neglect of urban villages in the drive to achieve social cohesion and the goals of Vision 2020 in Malaysia. It includes data from a survey of 334 respondents. The study found that satisfaction with neighbourhood facilities was a significant predictor of social trust and that there was a need to improve perception and satisfaction of users towards these facilities, especially the commercial and educational ones.

In addition, Dimuna and Olotuah (2019) assessed residents' satisfaction with planning and neighbourhood facilities of six public residential estates in Benin City, Nigeria. The study surveyed 1000 housing units. Findings showed that relative satisfaction index scores for all the estates were fair within the region of 2.1 to 3.0, implying that residents were satisfied with the estate planning conditions. Results showed no significant difference in the relative satisfaction index among the estates, while it found significant relationship between estate planning and residential satisfaction. The study recommends the need for improved government policy to encourage a decent and liveable environment in terms of planning of estates. These studies have been able to provide some information on certain aspects of neighbourhoods and satisfaction; they however did not provide information that contributes towards understanding the intricacies that exist between socioeconomic profile of residents and satisfaction with neighbourhood facilities in public housing estates.

However, few studies that exists on this subject relates socioeconomic variables with other aspects of satisfaction. Li (2012) found that income and education determines neighbourhood satisfaction. Likewise, Mohit and Ali (2016) determined that socioeconomic variables significantly influence neighbourhood satisfaction. According to Sungur and Cagdas (2003), individual and household characteristics including age, and characteristics of location of resident were significant predictors of neighbourhood satisfaction. Similarly, Amestoy and Toscano (2007) found that gender is a significant but weak predictor of housing satisfaction. Conversely, Li

and Song (2009) in a study conducted in Shanghai between displaced residents and other residents of the city averred that socioeconomic and demographic characteristics do not significantly predictors of residential satisfaction. Likewise, Housing Authority Council (HAC, 2000) observed that income did not influence satisfaction, however age of the respondents was. It then becomes pertinent to discover how socioeconomic variables relate with users' satisfaction with neighbourhood facilities, which is scanty in literature.

This study therefore aims to extend the literature by exploring how socioeconomic factors influence users' satisfaction with neighbourhood facilities in developing countries especially as it relates to public housing estates. In other words, the goal of this study is to examine the influence of socioeconomic variables of residents on their level of satisfaction with the neighbourhood facilities in selected public housing estates in Akure, Ondo State, Nigeria. It analysed the socioeconomic characteristics of the respondents, assessed their level of satisfaction with neighbourhood facilities and explored how the former predicts the latter in the study area. This should provide information that could be used to improve housing policy for the purpose of planning and developing satisfactory public housing estate facilities for residents. The paper continues by introducing the conceptual framework as well as the methodology section. Section 5 provides the results of data analysis, kicking off with description of the socioeconomic characteristics of the respondents, followed by a description of the satisfaction level with neighbourhood facilities, and then Categorical Regression Analysis of the relationship between the two. The paper later concludes by discussing the results obtained, offering recommendations and implications of the findings, thus adding to the body of knowledge on the subject.

CONCEPTUAL FRAMEWORK

Several socioeconomic variables have been tested against different aspects of satisfaction (Li, 2012; Mohit & Ali, 2016; Sungur & Cagdas, 2003; Amestoy & Toscano, 2007; Li & Song, 2009). It is therefore important to show how they influence satisfaction with neighbourhood facilities. Figure 1 shows the conceptual framework for this study. The study conceptualized that socioeconomic characteristics of respondents influence their level of satisfaction with neighbourhood facilities. The socioeconomic characteristics include gender, age, marital status, employment status, tenure status, income, household size, length of stay, and level of education. Satisfaction with neighbourhood facilities in the study area was construed as the dependent variable while these socioeconomic variables were the independent (predictor) variables. It hypothesized that the several socioeconomic variables influence their levels of satisfaction with neighbourhood facilities.

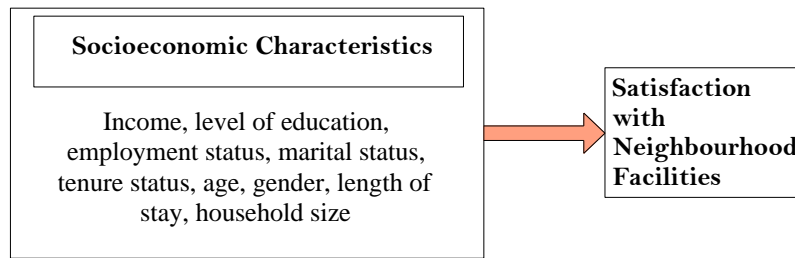


Figure 1: Conceptual Framework for the study

RESEARCH METHODOLOGY

This study used primary data collected through structured questionnaire. The instrument was structured according to the study themes in order to make the questions easy to follow and read by the respondents. The themes of the study are socioeconomic characteristics and satisfaction with estate facilities. The estate facilities were namely: recreational open spaces, religious centres, schools, police stations/posts, shopping centres, health centres/clinics, fire service stations, and event centres. The socioeconomic variables examined were gender, age, marital status, education, employment status, monthly income, tenure status, household size and length of occupation. The levels of satisfaction with estate facilities were defined as very dissatisfied, dissatisfied, neutral, satisfied, and very satisfied. The respondents were asked to select their preferred options from the ones presented. The questionnaire was administered physically in three public housing estates namely: Alagbaka (AHE), Ijapo (IHE), and Oba-Ile Housing Estates (OIHE) by trained assistants. The number of housing units in IHE is 600, while for AHE and OIHE are 508 and 721 respectively. This brings the target population for the study area to 1,829 housing units. Three hundred and eighteen (318) is the sample size for the study, which was generated using Sample Size Table by Bartlett *et al* (2001). The number of copies of the questionnaire administered in each of the estates was determined according to the proportion of their contribution to the total population size. Stratified random sampling technique was used in each of the housing estates to select the samples. An

additional 10% of the questionnaire was administered for the study to ensure that the percentage return was as close as possible to the sample size; and this made the total copies of the questionnaire to be 350. Three-hundred and one (301) copies were retrieved, representing 94.6 percentage return. Single Factor Descriptive Statistics, Mean Scoring and Categorical Regression were used in the analysis for this research and Statistical Package for the Social Sciences Version 20 was used for the analysis. Categorical Regression Analysis was used because the dependent variable was in categorical scale (International Business Machine Corporation, 2021). Hence, categorical regression was carried out with optimal scaling method with the criteria for convergence set at 0.00001. A Confidence level of 95% was used for analysis in this study.

RESULTS AND DISCUSSION

Socioeconomic Characteristics of Respondents

Table 1 shows that most of the respondents are not high-income earners since 42.2% of them earn less than N50,000, while only 22.9% of them earn between N50,000 and N99,999 monthly. Over half of the respondents (56.1%) were single, while majority of them were well educated with over 75% of them being educated up to the tertiary level. Majority of the respondents (69.8%) were employed or retired from an employment, while over half (54.8%) of them are renters in the study area. Over four-fifths of them are either forty years of age and below, over seventy-percent of them have a household size of between 3 to 6 persons, and over 66% of them have lived in the study area for over ten years.

Table 1: Socioeconomic characteristics of respondents in the study area

Factors	Frequency (n=301)	Percentage (%)
<i>Income</i>		
Below N50,000	127	42.2
N50,000- N99,999	69	22.9
N100,000- N149,999	18	6.0
N150,000- N199,999	27	9.0
N200,000 – N249,000	18	6.0
N250,000 and above	9	3.0
No response	33	11.0
<i>Level of Education</i>		
No Formal Education	3	1.0
Primary	0	0.0
Secondary	66	22.0
Tertiary	226	75.1
No response	6	2.0
<i>Employment Status</i>		
Unemployed	91	30.2
Civil Servant	66	21.9
Self Employed	93	30.9
Retired	6	2.0
Private Sector Employed	36	12.0
<i>Marital Status</i>		
Single	169	56.1
Married	126	41.9
Widowed	0	0.0
Separated	6	2.0
<i>Tenure Status</i>		
Privately Rented	165	54.8
Owner Occupied	66	21.9
Free Occupation	3	1.0
Family House	45	15.0
Employer's Quarters	6	2.0
No response	16	5.3
<i>Age of Respondents</i>		
Below 30 Years	145	48.2
31-40 Years	108	35.9
41-50 Years	27	9.0
51-60 Years	15	5.0
61-70 Years	6	2.0
70 Years and above	0	0.0
<i>Household Size</i>		
1-2	45	15.0
3-4	138	45.8
5-6	81	26.9
7-8	22	7.3
9-10	3	1.0
Above 10	3	1.0
No Response	9	3.0
<i>Length of Occupation</i>		
1-10 years	198	66.4
11 – 20 years	82	27.2
21 – 30 years	9	3.0
31 – 40 years	9	3.0
No response	3	1.0
<i>Gender</i>		
Male	163	54.2
Female	138	45.8

Levels of Satisfaction with Neighbourhood Facilities in the Study Area

Table 2 shows the level of satisfaction with neighbourhood facilities in the study area. They were ranked according to their positions as determined by Mean Satisfaction Scoring (MSS). The total MSS for satisfaction with neighbourhood facilities was 3.41, suggesting that the respondents were generally satisfied with estate facilities in the study area. The highest ranked neighbourhood facility in terms of satisfaction is religious centres with MSS of 3.96, 88.1% of the respondents rated it as satisfactory while 11.9% rated it as dissatisfactory. The lowest ranked neighbourhood facility in terms satisfaction in the study area is fire service station with a MSS of 2.37 and 68.8% of the respondents rated it as dissatisfactory while 31.2% rated it as satisfactory. Other selected neighbourhood satisfaction variables according to their ranking were schools (MSS = 3.68, D = 28.9%, S = 71.1%), shopping centres/ shops (MSS = 3.68, D = 13.2%, S = 86.8%), event centres (MSS =

3.60, D = 15.9%, S = 84.1%), health centres/clinics (MSS = 3.34, D = 21.1%, S = 78.9%). In addition, recreational open spaces were (MSS = 3.33, D = 23.9%, S = 76.1%), and police station/post (MSS = 3.31, D = 23.9%, S = 76.1%). This implies that there is generally high level of satisfaction with neighbourhood facilities in the study area.

In the study area, it is clear that there is generally a neutral level of neighbourhood satisfaction; except for fire service station within the estate, which was low. This means that though fire safety was important to the residents, they were generally disappointed that they were not adequately provided. This also means that, should there be a fire outbreak within the estates, the residents were concerned that the response rate to handle the outbreak would not likely be swift. If people's current experiences are lower to their aspirations, the usual response is dissatisfaction with that experience. This is a very common phenomenon in Nigeria, where there is huge safety infrastructure deficit (Ndubuisi, 2018; Ayansola & Abiru, 2020).

Table 2: Satisfaction with Neighbourhood Facilities and MSS in the study area

Neighbourhood Satisfaction Variables	D	%	S	%	T	%	MSS N=301	Position
Recreational open spaces	72	23.9	229	76.1	301	100	3.33	6
Schools	87	28.9	214	71.1	301	100	3.68	2
Police Station/Post	72	23.9	229	76.1	301	100	3.31	7
Religious centres	36	11.9	265	88.1	301	100	3.96	1
Shopping centres/shops	39	13.2	262	86.8	295	100	3.68	2
Health centres/Clinic	63	21.1	238	78.9	298	100	3.34	5
Fire service station	207	68.8	94	31.2	301	100	2.37	8
Events Centre	48	15.9	253	84.1	301	100	3.60	4
Grand Mean							3.41	

D = Dissatisfied; S = Satisfied; T = Total

Socioeconomic Predictors of Satisfaction with neighbourhood facilities

The research investigated the socioeconomic predictors of the level of satisfaction with neighbourhood facilities in the study area using Categorical Regression Analysis. For this analysis, the level of satisfaction with neighbourhood facilities was the dependent variable, while monthly income, marital status, level of education, employment status, tenure status, age, gender, household size and length of occupation were the independent (predictor) variables. The result in Table 3 shows that not much of the variance in the dependent variable is explained by the regression model with Multiple R = 0.591, and coefficient of determination (R^2) = 0.349. This implies that the regression model explains 34.9% of the residual variation in the level of satisfaction with neighbourhood facilities in the study area. The remaining percentage could be explained by other factors, which are beyond the scope of this study. In addition, Table 3 shows ($p = 0.000$), which also implies that the regression model is statistically significant at $p < 0.05$ and that a significant relationship exists between residents' socioeconomic characteristics and their satisfaction with neighbourhood facilities in the study area. This finding is supported by Li (2012), Mohit and Ali

(2016), Sungur and Cagdas (2003) and Amestoy and Toscano (2007), which found that socioeconomic characteristics of users influence their level of satisfaction; while being contrary to the findings of Li and Song (2009), which found that here is no significant relationship between satisfaction and socioeconomic characteristics. This suggests that improvement in the socioeconomic profile of residents should improve their level of satisfaction with the facilities.

It is clear in the Table that only three of the variables investigated were significant predictors of the level of satisfaction with neighbourhood facilities. The order of the importance of the variables are level of educational attainment ($\beta = 0.597$, $p = 0.029$), tenure status ($\beta = 0.193$, $p = 0.041$), and length of occupation ($\beta = 0.184$, $p = 0.001$). The strongest significant predictor was respondents' level of education, which indicates that it contributed the most in predicting satisfaction with neighbourhood facilities. The weakest one was length of occupation, which indicates that it contributed the least. However, gender, marital status, age, employment status, income level and household size were not significant predictors in the model.

This finding is partially consistent with the findings of several researchers, which found that several

socioeconomic variables have positive relationship with satisfaction. Li (2012) found that income significantly influenced neighbourhood satisfaction; whereas HAC (2000) found that it did not do so within the context of their study. Li (2012), HAC (2000), and Sungur and Cagdas (2003) determined that level of educational attainment and age significantly predicted

neighbourhood satisfaction. Similarly, Amestoy and Toscano (2007) found that gender significantly predicted housing satisfaction; this is contrary to the findings of this study. This suggests that these findings could be partially applicable to the context of this study.

Table 3: Socioeconomic predictors of Residents' Satisfaction with neighbourhood facilities

Socio-economic Characteristics of Respondents	Standardized Coefficients		df	F	Sig
	Beta	Std. Error			
Gender	0.074	0.068	1	1.174	0.280
Marital status	0.072	0.080	2	0.811	0.446
Age of respondents	0.201	0.105	1	3.680	0.056
Level of educational attainment	0.597	0.315	2	3.593	0.029*
Employment Status	0.193	0.118	2	2.671	0.071
Income Level	0.033	0.162	1	0.042	0.838
Tenure status	0.193	0.107	2	3.240	0.041*
Household Size	0.053	0.070	1	0.568	0.452
Length of Stay	0.184	0.077	3	5.792	0.001**
Multiple R	R²		df	F	Sig
0.591	0.349		251	8.431	0.000

Dependent variable: Level of satisfaction with neighbourhood facilities;

**Significant predictors (P<0.01); * Significant predictors (P<0.05)

CONCLUSION

This paper examined satisfaction with neighbourhood facilities in selected public housing estates in Akure, Nigeria as well as the socioeconomic variables that influence it. The study found that three out of the nine socioeconomic variables examined in this study singularly predicted satisfaction in the model. However, the nine variables jointly had significant influence on satisfaction with neighbourhood facilities in the study area. Individually, level of educational attainment contributed the most, while length of occupation contributed the least to the model. Tenure status also contributed significantly to the model. The variables that were not significant contributors to the model were, gender, marital status, age of respondents, employment status, income level, and household size. The study also showed that socioeconomic factors significantly predict the level of neighbourhood satisfaction in the study area, with $p = 0.0000$. The predictive power of the model was 0.349, meaning that only 34.9% of the variance in satisfaction with neighbourhood facilities is explained

by the socioeconomic variables in this context. Since, the results could be different for another context, further studies are required. This study was carried out in public housing estates in the urban setting. However, the study cannot be used to generalize for other types of housing environments like private housing estates/ layouts, or even rural housing. For generalization, further studies in these other types of housing are required. Policy makers, developers, architects and government agencies that manage public housing estates should ensure that planning of future and existing public residential estates should consider the residents' socioeconomic characteristics because this has the potential to enhance satisfaction particularly as it pertains to neighbourhood facilities. This study has contributed to the existing body of knowledge by showing which socioeconomic variables predict satisfaction with neighbourhood facilities; this should enhance the process of developing strategies to improve satisfaction with public housing estate facilities.

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