



## Effects of Residents' Socioeconomic Characteristics on Housing Satisfaction in Akure, Nigeria

FAKERE, A.A.\*; FADAIRO, G. and FOLORUNSO, C.O.

Department of Architecture, Federal University of Technology, Akure, Ondo State, Nigeria

**ABSTRACT:** This paper was based on the idea that housing satisfaction is essential for improvement in the quality of residents' lives. However, several socioeconomic factors could influence the level of residents' housing satisfaction. This study examined 304 households in Akure, data were obtained through structured questionnaire and physical observations. Obtained data were analyzed using Single-Factor Descriptive Analysis, Mean Satisfaction Scoring (MSS) and Categorical Regression Analysis. The findings showed a positive significant relationship ( $p=0.038$ ) between residents' housing satisfaction and their socioeconomic characteristics. The study also found that most of the independent variables significantly influenced housing satisfaction, with stages of participation in housing development being the variable with highest level of influence. The study concluded that socioeconomic characteristics of residents are important determinants of housing satisfaction in Akure, Nigeria and should therefore be of utmost considerations in the design and planning of housing environments.

**Keywords:** Akure, housing satisfaction, residents, socioeconomic characteristics

JoST. 2018. 9(1): 110-122.

Accepted for Publication, March 23, 2018

### INTRODUCTION

It has become increasingly essential to evaluate housing satisfaction due to the prevalence of dissatisfactory housing in developing countries like Nigeria. Several studies (Jiboye, 2004; Ibem, 2010; Omole, 2010; Ukoha and Beamish, 1997) in Nigeria have found that the bulk of existing housing stocks in the country are dissatisfactory to most households. Satisfactory housing is important to housing users because, it has larger effects on the quality of their lives. One of the disadvantages of dissatisfactory housing is that it could constitute 'push' factors; which makes people to have a desire to move from such residential environments and relocate to better ones that meets their needs (Aduwo, Ibem and Opoko, 2013). In other situations, it could lead to uncontrolled residential transformations, which

creates slum conditions and degenerates the environment (Adegbehingbe, 2011; Adegbehingbe, Ogunsote and Fadamiro, 2010; Fakere, Arayela and Folorunso, 2017). The degeneration of the environment in turn, has negative implications for sustainability and the Sustainable Development Goals (SDGs).

Housing satisfaction is a measure of the performance of residential buildings in meeting the needs and expectations of its users (Ibem, Opoko, Adeboye and Amole, 2013). This stresses the importance of achieving housing satisfaction and the need to develop strategies for ensuring its achievement for housing environments. In Nigeria, such strategies have not been thoroughly investigated in the literature (Adedeji, 2005, Daramola, 2006; Jiboye, 2004). However, to develop strategies for enhancing

\*Correspondence to: Fakere, A.A.; [aafakere@futa.edu.ng](mailto:aafakere@futa.edu.ng)

housing satisfaction, there is the need to understand the characteristics of its users. This makes an understanding of the socioeconomic characteristics of residents important, because these influence the level of users' housing satisfaction (Amole, 2009; Ibem, 2011).

This study therefore focuses on identifying the socioeconomic factors of the residents that influence the level of housing satisfaction in Akure, Nigeria. To achieve this aim, this study

examined eleven socioeconomic characteristics of respondents; the level of housing satisfaction; and analyzed the relationship between both of them. This should provide empirical data necessary for policy making in order to enhance the level of housing satisfaction in Nigeria. The results were discussed, conclusions and recommendations were made to highlight its larger implications for housing satisfaction in Nigeria.

### LITERATURE REVIEW

Studies on residential satisfaction cuts across a broad range of disciplines in the built environment, management as well as in the social sciences (Ibem, Opoko, Adeboye, Amole, 2013). This is because housing satisfaction is a very important quality of life, because people live in houses and such living environments should meet their residential needs. According to Mohit, *et al* (2010) residential satisfaction is the feeling of individual contentment achieved when a housing environment meets residential needs. Ibem, *et al* (2013) defined it as a measure of the discrepancy between the users' actual and expected performance of products and/or services in meeting their needs and expectation from the users' perspective during or after the consumption experience. These definitions have shown that housing satisfaction is a subjective measure of how residents perceive their living environments. It is based on how individuals feel about their residential environment and the effects it has on their lifestyles. Thus, different categories of people would perceive the same environment in different ways according to what their expectations are for that environment. These expectations are usually determined by their unique socioeconomic characteristics and previous experiences. Thus, the importance of evaluating the socioeconomic characteristics of residents in the study of housing satisfaction cannot be overemphasized. Several studies have

established a relationship between users' socioeconomic characteristics and housing satisfaction in different categories of housing. Ibem (2011) studied housing satisfaction of different categories of residents using varied public housing strategies in Ogun State. The study found significant relationship between the socioeconomic characteristics of residents and their housing satisfaction across the different strategies. Socioeconomic variables such as housing delivery strategies, additional space requirements, age, monthly income, house type, and tenure status of respondents were found to significantly influence housing satisfaction in that context. The study recommended that socioeconomic characteristics of residents should be of utmost consideration in planning for housing satisfaction.

Chen, *et al* (2013) studied the disparities in residential environment and satisfaction among residents in China. It sought to examine the degree of differences in residential satisfaction between different groups of people in the study area. The study found that income level, house type, and homeownership status influenced the level of residential satisfaction. The study also found that low-income groups live in environments that are more vulnerable and are likely to be dissatisfied with their housing environments. The study recommended that residential satisfaction of low-income residents could be enhanced through providing adequate and appropriate type of housing for them.

Amole (2009) examined residential satisfaction in student housing in four universities in Nigeria. The study evaluated how satisfied students were with their residential environments and its influencing factors. It found that the students were generally dissatisfied with their housing. The study found that socioeconomic characteristics influenced residential satisfaction. The variables that were specifically identified were economic status and age; however, gender was not found to influence residential satisfaction in that context. The study concluded that it is important to evaluate socioeconomic characteristics in the study of residential satisfaction.

These studies have established a relationship jointly and individually between socioeconomic characteristics of residents and housing satisfaction. These studies have shown that more research is required since the results are inconclusive. For instance, while Ibem (2011) found that age is a significant predictor of housing satisfaction, Amole (2009) found the opposite. Moreover, literature remains inconclusive on the relationship between

socioeconomic characteristics and residential satisfaction (Huang, Du and Yu, 2015; Mohit and Adel, 2014). Thus, there is the need to have a better understanding of the dynamics of these relationships by studying other contexts. In agreement, Mohit, Mansor and Razida (2010) observed that the effects of households' characteristics on residential satisfaction tend to vary by housing types, tenure, and countries. The study recommended that further studies are required to determine housing satisfaction on case-specific situations to guide housing policies and urban development. This means that the result of a specific case cannot be easily generalizable to other contexts: an indication of the inconclusiveness of the existing results on this subject.

The key issue in this study is that, there is a need to understand the socioeconomic factors that could support or reduce residential satisfaction. Understanding these influences in developing countries like Nigeria could assist with identifying aspects of utmost consideration in planning for housing satisfaction.

## **MATERIALS AND METHODS**

This study relies on primary data collected through structured questionnaire and physical observations. The structure of the questionnaire is according to the themes of the study in order to make the sequence of questions easy to follow, thus easy to read for the respondent. The themes of the study are the socioeconomic characteristics of residents and satisfaction with several attributes of the house. Since the questionnaire is standardized, it ensured that respondents answered to common questions. The first section relates to the first theme and is about residents' socioeconomic characteristics and the second section is about satisfaction with several attributes of the house. The respondents were asked to select the correct options from the socioeconomic characteristics. The level of

residential satisfaction were defined as very dissatisfied, dissatisfied, neutral, satisfied, and very satisfied. The respondents were asked to select the option that corresponds with their level of satisfaction with different attributes of the house.

Figure 1 shows the locations of the residential districts that make up the study area (represented with large dots). The number of housing units in the study area is 5449. The sample size for the study is 359, which was generated using Sample Size Calculator (an online application developed by the Creative Research Systems). This number of questionnaires for each of the districts was determined according to the proportion of their contribution the total population size. Simple random sampling was used to select the houses

that were studied and heads of households in each house were the basic focus of questionnaire administration and other research enquiries. The percentage return for the questionnaires was 84.7% (304 copies), which was deemed as sufficient for the study. These were used for analysis in this research and the results are presented below. Mean Satisfaction Scores (MSS) and Categorical Regression Analysis were used in the analysis for this research.

MSSs was generated through Weighted Mean is a kind of average; instead of each data point contributing equally to the final mean, some data points contribute more "weights" than others do (Theme Horse, 2016). The MSSs were used to rank the attributes of satisfaction with the house. The attributes higher on the ranking suggest the ones that the respondents were more satisfied with, while the ones lower on the ranking suggests the ones they were less satisfied with. The formula used for calculating weighted mean is:

Weighted mean =  $\frac{\sum wx}{\sum w}$  (eq. 1)

where  $\sum$  = the sum of all the points;

$w$  = the weights;  $x$  = the values

Prior to the fieldwork, a pilot survey was conducted in the study area. This was done to identify possible problems that might arise from the questions during the field survey and if there are any problems with the overall structure of the questionnaire, it may be necessary to amend it at the pilot testing stage. Thus, it was carried out to pre-test the research instrument and assist with the clarity of terms used. Twenty (20) questionnaires were used for the pilot

testing in the study area. These were used to run the Cronbach's Alpha Reliability Test for this study. In order to facilitate meeting of respondents, data was collected during morning and evening hours as well as on weekends, at their homes. The outcome was of assistance in reframing the questionnaire as necessary. The Cronbach's Alpha test for reliability was conducted with the research questionnaire for this study. The Cronbach's Alpha Test yielded a value of 0.856, which means that the sections require no revision. This is because, according to George and Mallery (2003), no revision is required for the questionnaire if the value is 0.7 and above.

### Conceptual Framework of the Study

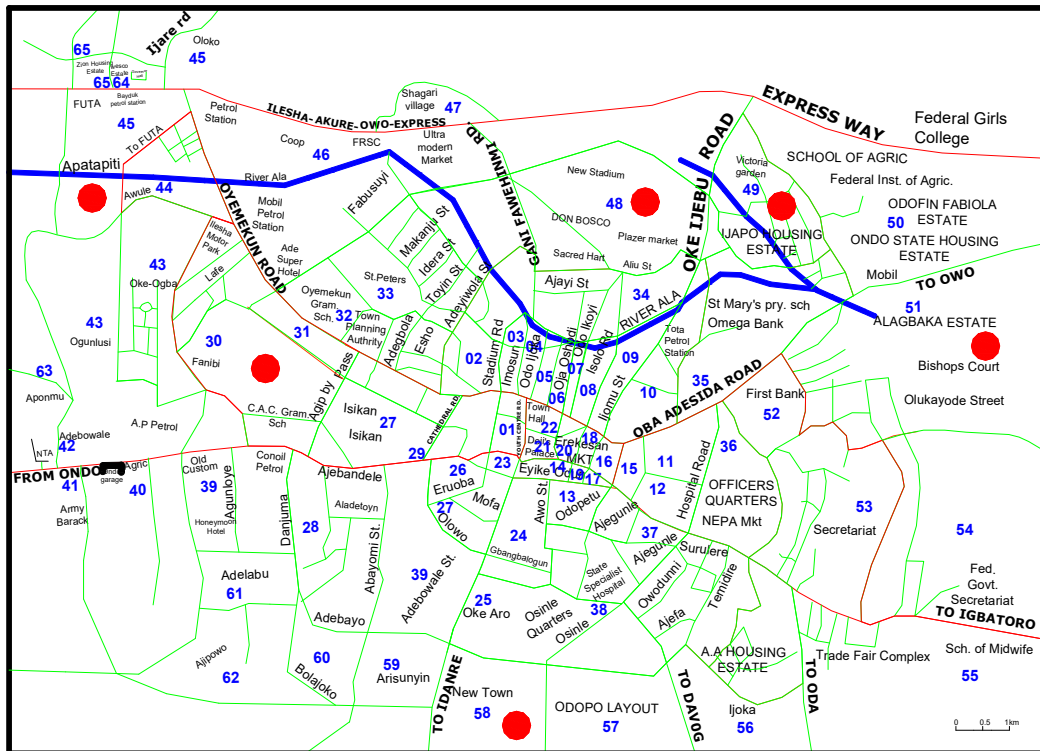
The study conceptualized levels of residents' housing satisfaction as influenced by their socioeconomic characteristics. Housing satisfaction was construed as the dependent variable while eleven socioeconomic variables were the independent variables. The authors hypothesize that residents' socioeconomic variables will influence the levels of housing satisfaction. The dependent variable, levels of housing satisfaction, was construed as multifaceted: as very dissatisfied, dissatisfied, neutral, satisfied, and very satisfied (a Likert scale). The independent variables were level of education, employment status, tenure status, source of finance, stages of participation in housing development, age, household size, monthly income, gender, additional space requirements in housing unit, and house type.

## RESULTS AND DISCUSSION

### Socioeconomic Variables of Respondents

Table 1 shows that almost two-thirds of the respondents (66.4%) were males which shows the dominance of males as household heads in the study area. Majority (90.8%) are 60 years of age and below, which indicates a large population of working and active residents. Over three-fourths (75.2%) of the respondents earn a

monthly income of below ₦150,000, which shows that most of them earn above the Nigerian minimum wage of ₦18,000 (Bassey, 2017). Over four-fifth of them were educated with 85% of them having Diploma/National Certificate of Education or University Degree. Almost all of the them (98.1%) were employed or retired from an employment, while almost half (45.7%) of them



**Figure 1: Road Map of Akure with overlay of the concentric zones showing the study areas**

Source: Ministry of Housing and Urban Development, Akure; Owoeye and Omole, 2012; Fakere, Arayela and Folorunso, 2017

are owner-occupiers. Almost three-fourths of the respondents (70.7%) saved up the money for their housing. The household size of almost three-fourths of the respondents (70.8%) is between 3 and 6 people. Over half (52.6%) of the respondents participated in at least one stage during the development of the houses of their abode, and over two-thirds (66.7%) of the respondents live in either single family or semi-detached bungalows. Almost two-thirds (63.8%) of them needed additional spaces which were not provided in their housing units.

**Level of satisfaction with the attributes of the house in the study area**

Table 2 shows the satisfaction ratings of respondents with the houses in the study area. The ratings of each of the values were in Likert

scale. The scales are ‘very dissatisfied’ (1), ‘dissatisfied’ (2), ‘neutral’ (3), ‘satisfied’ (4), and ‘very satisfied’ (5). The numerical information identified were converted to a two point scale of one (1) and two (2); where one (1) through three (3) on the five point scale were coded as one (1) for “dissatisfied” and four (4) to five (5) were coded as two (2) for “satisfied”. These were applied to Table 2.

Table 2 shows the respondents’ ratings of satisfaction with the attributes of the house in the study area. The attributes are ranked according to their positions as determined by the MSS. A proportion of 77.6% of the respondents are satisfied with number of bedrooms in the house and it had the highest MSS of 3.93. The lowest ranked house attribute in the Table is landscaping of the plot with MSS

**Table 1: Socioeconomic and demographic characteristics of respondents in the study area**

<b>Factors</b>	<b>Frequency (n=304)</b>	<b>Percentage (%)</b>
<b>Gender</b>		
Male	202	66.4
Female	102	33.6
<b>Age</b>		
18-30 years	22	7.2
31-40 years	98	32.2
41-50 years	95	31.2
51-60 years	61	20
61-70 years	20	6.6
Above 70 years	8	2.6
<b>Income</b>		
Below N50,000	71	23.3
N50,000- N99-999	95	31.2
N100,000- N149,999	63	20.7
N150,000- N199,999	29	9.5
N200,000- N249,999	19	6.2
N250,000 and above	25	8.2
No response	2	0.7
<b>Level of Education</b>		
No formal education	4	1.3
Primary	6	1.9
WASC/NECO/O' Level	33	10.9
OND/NCE/A' Level	37	12.2
HND/ B. Sc.	121	39.8
Postgraduate	85	27.9
Doctorate	18	5.9
<b>Employment Status</b>		
Unemployed	6	1.9
Self Employed	86	28.2
Private/Corporate Sector Employee	25	8.2
Civil Servant	157	51.6
Retired	30	9.9
<b>Tenure Status</b>		
Privately Rented	121	39.8
Owner Occupied	139	45.7
Inherited	2	0.7
Family House	17	5.6
Employer's Quarters	28	9.2
Free Occupation	6	1.9
No response	1	0.3

**Table 1 (Cont'd): Socioeconomic and demographic characteristics of respondents in the study area**

<b>Factors</b>	<b>Frequency (n=304)</b>	<b>Percentage (%)</b>
<b><i>Source of finance for house</i></b>		
Personal Savings	215	70.7
Mortgage Borrowing	5	1.6
Financial Institutions	6	1.9
Cooperative Societies	38	12.5
Housing Loan	22	7.2
Local Borrowing	5	1.6
Free Occupation	12	3.9
No Response	1	0.3
<b><i>Stage of Participation in housing development</i></b>		
Inception Stage	114	37.5
House Design Stage	7	2.3
Town Planning Approval Stage	7	2.3
Construction Stage	11	3.6
External Works Stage	4	1.3
Finishing Stage	8	2.6
Modification Stage	8	2.6
No Participation	144	47.4
<b><i>House Type</i></b>		
Rooming House	35	11.5
Single Family Bungalow	132	43.4
Semi detached Bungalow	71	23.3
Duplex	27	8.9
Semi detached Duplex	7	2.3
Block of Flats	30	9.9
No Response	2	0.7
<b><i>Additional space requirements in housing units</i></b>		
Space for Shop	22	7.2
Storage Space	27	8.9
Visitors' Toilet	37	12.2
Guest Bedroom	22	7.2
Laundry	48	15.7
Outdoor Cooking Space	16	5.2
En-Suite Bedrooms	14	4.6
Dining Room	4	1.3
Kitchen	1	0.3
Ante Room	1	0.3
Study Room	2	0.7
None	110	36.2

**Table 2: Residents' satisfaction with attributes of the houses and mean satisfaction scores in the study area**

Satisfaction Variables	D	%	S	%	T	%	MSS	Position
Number of bedroom in the house	68	22.4	236	77.6	304	100	3.93	1
Size of bedrooms	54	17.8	250	82.2	304	100	3.92	2
Adequacy of natural daylight	66	21.7	238	78.3	304	100	3.89	3
Level of privacy	70	23	234	77	304	100	3.86	4
Suitability of the house design to natural way of life	65	21.4	239	78.6	304	100	3.83	5
Size of the living and dining room	72	23.7	232	76.3	304	100	3.81	6
Thermal Comfort in the house	66	21.7	238	78.3	304	100	3.80	7
Noise level in the house	73	24	231	76	304	100	3.77	7
Beauty of the house (aesthetics)	82	27	222	73	304	100	3.74	9
House Type	74	24.4	230	75.6	304	100	3.73	10
Type of Building materials	83	27.3	221	72.7	304	100	3.73	11
Toilets/Bathrooms	81	26.7	223	73.3	304	100	3.69	12
Cost of acquiring/renting the house	80	26.3	224	73.7	304	100	3.68	13
Size of Kitchen/Store	86	28.3	218	71.7	304	100	3.66	14
Landscaping of the plot	116	38.2	188	61.8	304	100	3.44	15

D = Dissatisfied; S = Satisfied;

T = Total

of 3.44 and a proportion of 61.8% of the respondents rated it as satisfied while 38.2% were not satisfied with it. This implies that the respondents in the study area were most satisfied with the number of bedrooms in their houses and least satisfied with the landscaping of their plots. The physical observations revealed that most of the houses in the study area were not properly landscaped. The inhabitants focused mainly on constructing the building itself and achieving 'a roof over one's head' rather than on the landscaping of their plots. This is probably the reason this was the variable with the least satisfaction rating, while another factor could be accrued to poverty. Thus, the landscaping is considered secondary since their primary aim of living in the houses has been achieved, even without proper landscaping being in place. The other satisfaction variables according to their ranking were size of bedrooms house (MSS

= 3.92), adequacy of natural day lighting (MSS = 3.89), level of privacy (MSS = 3.86), and suitability of the house design to the natural way of life (MSS = 3.83). Others are and size of the living and dining room (MSS = 3.81), thermal comfort (MSS = 3.80), noise level in the house (MSS = 3.77), and aesthetics (WM = 3.74). The remaining ones are house type (MSS = 3.73), type of building materials (MSS = 3.73), toilets/bathrooms (MSS = 3.69), cost of building/renting the house (MSS = 3.68), and size of kitchen/ store (MSS = 3.66).

**Socioeconomic Characteristics and Housing Satisfaction**

The research further investigated the effects of socioeconomic variables on housing satisfaction in the study area. Categorical regression analysis was carried out using optimal scaling method with the criteria for convergence set at 0.00001. In carrying out this analysis, the



level of housing satisfaction was the dependent variable, while respondents' highest level of education, tenure status, sources of finance for housing, employment status, monthly income, gender, age stages of participation in housing development, household size, spaces not provided in the house and house type were the independent (predictor) variables. Table III shows the result of the multiple categorical regression analysis. The result shows that much of the variance in the dependent variable is explained by the regression model with Multiple  $R = 0.775$ , and  $R^2 = 0.600$ . This indicates that the regression model explains 60% of the variance in the level of housing satisfaction in the study area, which is substantially high. The result also shows that ( $F=1.733$ ,  $df=39$ ,  $P = 0.038$ ), which also indicates that the result and regression model are statistically significant at  $p < 0.05$  and therefore there is significant relationship generally between socioeconomic characteristics of respondents and housing satisfaction. This is consistent with Ibem (2011), which found a relationship between socioeconomic characteristics of residents and in housing satisfaction.

From Table 3, it is evident that out of the eleven variables, nine were significant predictors of level of housing satisfaction. The variables identified to have significant effect on level of housing satisfaction in order of importance include stages of participation in housing development (Beta = -0.686), employment status (Beta = 0.555), house type (Beta = 0.487) and source of finance (Beta = 0.470). Others are tenure status (Beta = 0.433), level of education (Beta = 0.377), monthly income (Beta = 0.308), additional space requirements in the housing units (Beta = 0.280), and household size (Beta = 0.209). The strongest significant predictor however, is stages of participation in housing development, while the weakest significant predictor is household size. Gender and age had no significant relationship with housing satisfaction in this context.

This study has shown that most of the socioeconomic variables had significant relationship with housing satisfaction. These results provide an insight into the importance of socioeconomic characteristics in the performance of residential environments in Nigeria. It lends credence to the cursory evaluation of housing in Nigerian cities by Ibem (2011) and Amole (2009) which suggested that socioeconomic characteristics of residents were very important considerations for housing satisfaction. Homeownership has been seen as an important predictor of housing satisfaction. Thus, tenure status had significantly relationship with the level of housing satisfaction in this context because it goes a long way in determining self-actualization and fulfilment. This conforms to the findings of Zumbro (2014), and Mohit and Azim (2012), which showed a positive correlation between tenure status and housing satisfaction. This is an indication that if government of Nigeria succeed in promoting homeownership in the country, it would enhance the level of housing satisfaction in the country.

In support of previous studies (Ammar, Ali and Yusof, 2013; Carrol and Rosson, 2007; Jiboye, 2010), satisfaction was also found to have a significant relationship with participation. The involvement of people in the design and development of process of a housing environment can greatly enhance their level of housing satisfaction. The result of this study confirms this assertion and majority of the respondents were involved in at least one stage of the development of their housing, which positively influenced their level of satisfaction. Since, the stage of participation was significant, it was not surprising that respondents' source of finance is a significant determinant of level of housing satisfaction in this research. This is because when people have access to money to finance a house, they could think about participating in the design of such houses because they are responsible for its construction. In this context, majority (70.7%)

**Table 3: Coefficients of socio-economic predictors of Housing Satisfaction**

Socio-economic Characteristics of Respondents	Standardized Coefficients		df	F	Sig
	Beta	Std. Error			
Level of Education	0.377	0.122	3	9.574	0.000**
Employment Status	0.555	0.117	4	22.407	0.000**
Tenure Status	0.443	0.118	3	14.026	0.000**
Source of Finance	0.470	0.114	6	17.075	0.000**
Stages of Participation in housing development	0.686	0.122	6	31.536	0.000**
Age	0.037	0.111	1	0.111	0.740
Household Size	0.209	0.103	1	4.141	0.048*
Monthly Income	0.308	0.131	1	5.557	0.023*
Gender	0.145	0.103	1	1.974	0.167
Additional space requirements in housing units	0.280	0.110	8	6.500	0.000**
House Type	0.487	0.117	5	17.336	0.000**

Dependent variable: Level of housing satisfaction; \*\*Significant predictors (P=0.000); \* Significant predictors (P<0.05)

R = 0.775; R<sup>2</sup> = 0.600; F - value = 1.733; p-value = 0.038; df = 39

of the respondents financed their houses through personal savings, while the remainder financed their houses through one form of borrowing or another. This shows that most were able to save for their housing.

In the same vein, level of education is a significant predictor of level of housing satisfaction in this context and this is not surprising. The level of education in this context is very high and educated people tend to know the importance of being a part of the process of shaping their living environment; and this influences their level of satisfaction. These findings are in line with the findings of Huang and Du (2015), which reported that, educated positively influences housing satisfaction. Employment status and income were significant predictors of housing satisfaction in this context and this was expected. This is so because, people receive income when they are employed, and therefore, this increases the possibility of choosing an appropriate residential environment for themselves, which in turn has positive influence on their level of satisfaction.

This agrees with the findings of Huang and Du (2015), which observed that household income influences housing satisfaction.

In agreement with the findings of Chen, *et al* (2013), and Huang and Du (2015), this study found that household size influences the level of housing satisfaction. Additional space requirement was a significant predictor of housing satisfaction in this context, in agreement with the findings of Ibem (2011). This is so because, space requirements are a very important consideration in the desire for housing. The lack of required spaces have the potential to influence how users rate their living environments and residential mobility is also affected. In consonance with the findings of Mohit and Mahfoud (2015), Chen, *et al* (2013), and Ibem (2011), house type was also a significant predictor of housing satisfaction in this context. This is because when people do not live in the type of housing they desire, it influences their lives and, this affects how satisfied they are with such living environments.

Studies have not been conclusive about the effect of age on housing satisfaction. While Huang and Du (2015) found that age does, Huang, Du and Yu (2015) found that age does not influence satisfaction. In contribution, this study found that age does not have impact on the level of housing satisfaction in this context. The reason for this could be since households are made up of people of different ages, they tend to feel the same way about their abode regardless of their different ages. This study also found that gender does not influence

housing satisfaction in this context, in agreement with the finding of Amole (2009). On the other hand, Huang and Du (2015) observed that age influences housing satisfaction. This shows that the impact of gender on housing satisfaction is also inconclusive. However, the reason for the finding in this context could be that there are twice as many male respondents as women. Moreover, Amole (2009) reported that the roles of gender in the responses of users to the environment have often been inconclusive in the literature.

### **CONCLUSION AND POLICY IMPLICATIONS**

This paper examined the socioeconomic variables that predict the level of housing satisfaction. This was done by using these variables as factors, which could predict the level of satisfaction. The study showed that most of the respondents were satisfied with their houses. The study also showed that socioeconomic variables are indeed significant predictors of housing satisfaction, confirming the finding from previous studies. This study has been able to contribute to existing body of knowledge by showing how socioeconomic variables influence level of housing satisfaction. The predictive power of the regression model in the level of housing satisfaction was found to be substantially high with adjusted R Square of 0.600. This means that, not only do these variables predict the level of housing satisfaction; this predictive power is also appreciably high. This relationship is also absolute since  $p\text{-value} = 0.038$ . This means that these variables jointly and individually predict the level of housing satisfaction, with the exception of gender and age. Nevertheless, it is

possible for the result to be different in another context.

Therefore, further research is required in order to better understand this relationship in order to discover what the result would be in other contexts. Architects and policy makers in the design of houses will require such research in future for individuals and the public. This is in order to improve the level of residents' housing satisfaction in both public and private housing. Through studies such as this, the development of strategies for satisfactory housing environments would be more easily achieved, since the factors that influence it are known. This is fundamental in realizing the goals of residents' participation in house design, and contributes immensely to achieving higher residential satisfaction. Residential satisfaction incorporates human aspects of the built environment and is therefore important for human dignity. Therefore, housing and urban development measures and policies in Nigeria should be directed towards enhancing residential satisfaction by considering the unique characteristics of users.

### **ACKNOWLEDGEMENTS**

The authors wish to thank the Administration of the Federal University of Technology, Akure,

Nigeria for providing the facilities and support that made this research possible.

## REFERENCES

- Adedayo, O. F. (2010).** Housing design and its socio-cultural impact on the society: A case study of selected estates in Minna, Niger State, Nigeria. *Centre for Human Settlement and Urban Development Journal*, 2 (1), 1-10.
- Adedeji, Y. M. D. (2005).** Sustainable low-cost housing technology in cities: Accelerated construction initiative option. *Journal of Land Use and Development Studies*, 1 (1), 66-73.
- Adegbehingbe, V. O. (2011).** Analysis of physical transformation of residential building in selected government estates in South-Western Nigeria. Unpublished PhD thesis, Department of Architecture, Federal University of Technology, Akure.
- Adegbehingbe, V. O., Ogunsoye, O. O. & Fadamiro, J. A. (2010).** Reducing the need for housing transformation in South-Western Nigeria by addressing the causative agents. In *Olujimi, J. A. B., et al (Eds.), Proceedings of the International Conference of the School of Environmental Technology, Federal University of Technology, Akure, Nigeria; Man, Technological Advancement and Sustainable Environment*, 276-282.
- Aduwo, E. B., Ibem, E. O. & Opoko, A. P. (2013).** Residents' transformation of dwelling units in public housing estates in Lagos, Nigeria: Implications for policy and practice. *International Journal of Education and Research*, 1 (4), 1-20.
- Ammar, S. M. S., Ali, K. H. & Yusof, N. A. (2013).** The effect of participation in design and implementation works on user' satisfaction in multi-storey housing projects in Gaza, Palestine. *World Applied Sciences Journal*, 22 (8), 1050-1058. doi: 10:5829/idosi.wasj.2013.22.08.2842.
- Amole, D. (2009).** Residential satisfaction in students' housing. *Journal of Environmental Psychology*, 29, 76-85.
- Bassey, J. (2017).** Nigeria's ₦18,000 minimum wage, one of the world's lowest-Labour. *BusinessDay Newspapers*, May 1.
- Carroll, J. & Rosson, M. (2007).** Participatory design in community informatics. *Design Studies*, 28, 243-261.
- Chen, L., Zhang, W., Yang, Y., & Yu, J. (2013).** Disparities in residential environment and satisfaction among urban residents in Dalian, China. *Habitat International*, 40, 100-108.
- Daramola, S. A. (2006).** Affordable and functional housing in a developing country: A case study of Nigeria. *Journal of Land Use and Development Studies*, 2 (1). Available online: <http://journalanduse.org/Assets/Vol2%20Papers/AFFORDABLE%20AND%20FUNCTIONAL%20HOUSING%20IN%20A%20DEVELOPING%20ECONOMY.pdf>. [Accessed May 2007]
- Fakere, A. A., Arayela, O. & Folorunso, C. O. (2017).** Nexus between the participation of residents in house design and residential satisfaction in Akure, Nigeria. *Frontiers of Architectural Research*, 6 (2), 137-148.
- George, D. & Mallery, P. (2003).** SPSS for windows step-by-step: A simple guide and reference. 11.0 update (4th Ed.). Boston, Allyn & Bacon.
- Huang, Z. & Yu, X. (2015).** Assessment and determinants of residential satisfaction with public housing in Hangzhou, China. *Habitat International*, 47, 218-230.
- Huang, Z., Du, X & Yu, X. (2015).** Homeownership and residential satisfaction: Evidence from Hangzhou, China. *Habitat International*, 49, 74-83.
- Ibem, E. O. (2010).** Assessment of the qualitative adequacy of newly constructed public housing in Ogun State, Nigeria. *Property Management*, 29 (3), 285-304.
- Ibem, E. O. (2011).** Evaluation of public housing in Ogun State, Nigeria. Unpublished PhD

- Thesis, Department of Architecture, Covenant University, Canaan Land, Ota, Nigeria.
- Ibem, E. O., Opoko, A. P., Adeboye, A. B. & Amole, D. (2013).** Performance evaluation of residential buildings in public housing estates in Ogun State, Nigeria: Users' satisfaction perspective. *Frontiers of Architectural Research*, 2, 178-190.
- Jiboye, A. D. (2004).** The socio-cultural responsiveness of household size in housing quality in Osogbo, Nigeria. *Anthropologist*, 6 (3), 169-174.
- Jiboye, A. D. (2010).** The correlates of public housing in Lagos, Nigeria. *Journal of Geography and Regional Planning*, 3 (2), 17-28.
- Mohit, M. A. & Adel, M. M. A. (2014).** Residential satisfaction - concepts, theories and empirical studies. *Planning Malaysia - Journal of Malaysian Institute of Planners*, 3, 47-66.
- Mohit, A. M. & Mahfoud, A. A. (2015).** Appraisal of residential satisfaction in double-storey terrace housing in Kuala Lumpur, Malaysia. *Habitat International*, 49, 286-293.
- Mohit, M. A. & Azim, M. (2012).** Assessment of residential satisfaction with public housing in Hulhumale, Maldives. *Procedia- Social and Behavioral Sciences*, 50, 756-770.
- Mohit, A. M., Ibrahim, M & Rashid, Y. R. (2010).** Assessment of residential satisfaction in newly designed public low-cost housing in Kuala Lumpur, Malaysia. *Habitat International*, 34, 18-27.
- Omole, F. K. (2010).** An assessment of housing condition and socioeconomic lifestyles of slum dwellers in Akure, Nigeria. *Contemporary Management Research*, 6 (4), 273-290.
- Owoeye, J. O. & Omole, F. K. (2012).** Effects of slum formation on a residential core area of Akure, Nigeria. *International Journal of Environmental Sciences*, 1(3), 159-167.
- Theme Horse (2016).** Weighted mean: formula: How to find weighted mean. Retrieved March, 12, 2016, from [www.statisticshowto.com/weighted-mean/](http://www.statisticshowto.com/weighted-mean/).
- Ukoha, O. M. & Beamish, J. O. (1997).** Assessment of residents' satisfaction with public housing in Abuja, Nigeria. *Habitat International*, 21 (4), 445-460.
- Zumbro, T. (2014).** The relationship between homeownership and life satisfaction in Germany. *Housing Studies*, 29 (3), 319-338.