



## **Socioeconomic Characteristics and Satisfaction of Tenants in Public Housing in Lagos, Nigeria**

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### **Abstract**

This study examined the relationship between the socioeconomic characteristics (such as sex, age, marital status, religion, ethnicity, occupation, educational status, income level and household size) of public housing tenants and their housing satisfaction in Lagos, Nigeria. A survey of six randomly selected housing estates was carried out from the existing public housing estates in the study area. Using systematic sampling technique, 10 per cent of the housing units, totalling 1022 households, were sampled. Data were analysed by simple descriptive statistics and Pearson correlation coefficients. The study showed that age, education, income, marital status, occupation and house-hold size correlated significantly with tenants' housing satisfaction in Lagos. It also showed that other socioeconomic variables such as sex, religion and ethnic origin of the respondents are not significantly correlated with housing satisfaction. The study highlighted the need for policy makers on public housing to consider people's socioeconomic parameters when planning for new housing.

### **Résumé**

Cette étude a examiné la relation entre les caractéristiques socio-économiques (telles que le sexe, l'âge, le statut matrimonial, la religion, l'origine ethnique, la profession, le niveau d'instruction, le niveau de revenu et la taille des ménages) des locataires de logements sociaux et leur satisfaction à l'égard de leurs logements à Lagos, au Nigeria. Une enquête dans six quartiers résidentiels choisis de façon aléatoire a été réalisée à partir des ensembles de logements sociaux existants dans la zone d'étude. Utilisant une technique d'échantillonnage systématique, 10 pour cent des unités de logement, totalisant 1022 ménages, ont été

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sélectionnés dans l'échantillon. Les données ont été analysées par des statistiques descriptives simples et des coefficients de corrélation de Pearson. L'étude a montré que les caractéristiques telles que l'âge, l'instruction, le revenu, le statut matrimonial, la profession et la taille des ménages sont fortement corrélées à la satisfaction des locataires à l'égard des logements à Lagos. Elle a également montré que d'autres variables socio-économiques telles que le sexe, la religion et l'origine ethnique des personnes interrogées ne sont pas fortement corrélées à la satisfaction à l'égard des logements. L'étude a ainsi souligné la nécessité que les décideurs politiques tiennent compte des paramètres socio-économiques des populations lors de la conception des projets de construction de nouveaux logements.

### Introduction

Shelter has been considered as one of the three basic necessities of life in addition to food and clothing. Adequate shelter is required to provide man with protection, comfort and security (Olayiwola *et al.*, 2006; Osasona *et al.*, 2007). It contributes to the physical and moral health of a nation and stimulates social stability, work efficiency and the development of the individual (Onibokun, cited in Oladapo 2006; Jiboye 2008, and 2010a). In a simple sociological interpretation, the house is what clothing is to man (Jiboye and Ogunshakin 1997). It is as an integral part of human settlement that fulfils basic needs and has a profound impact on the quality of life, health, welfare as well as productivity of man (Ibem and Amole 2010). In fact, Rehman *et al.* (2003), consider housing as the backbone of a healthy community. The level of choice that people have in accessing affordable, adequate and suitable housing is essential to monitoring a good quality of life, and therefore contributes to the sustainability of the urban environment.

The significance of adequate and satisfactory housing to the social well-being of the people in any society cannot be overemphasised. Studies have established a strong correlation between housing, good health, productivity and socioeconomic development; and that there is a significant association between housing conditions and physical and mental health of an individual (Oladapo 2006; Gilbertson *et al.* 2008; Jiboye 2010b). Aigbavboa and Thwala (2011) have argued and affirmed that housing constitutes a major component of the urban environment, and that better designed houses contribute to the physiological and psychological well-being of the inhabitants. Nonetheless, housing provision still remains one of the most intractable problems facing mankind and societal advancement (Konadu-Agyemga *et al.* 1994). The provision of appropriate housing, particularly for the urban poor, therefore constitutes a major challenge to development in most African countries and developing nations at large (Jiboye and Ogunshakin 2010).

While several studies have traced the causes of the developmental challenge in housing to rapid urbanization and population growth (Sattertwate 2001; Ravalin 2007; Jiboye 2010c), Olotuah (2010), had noted that the most visible and obvious consequences of urbanization in developing countries, such as Nigeria, is often the rapid deterioration of urban housing and living conditions which is traceable to the fact that urbanization leads to explosive population growth, occasioned by a phenomenal leap in the quantitative housing needs of the populace. Consequently, housing needs are not matched by effective demand since the large majority of the populace does not have the wherewithal for adequate housing. Despite consistent efforts by governments, housing technocrats and researchers to meet the need for adequate shelter, research findings have revealed that the housing situation in most developing countries like Nigeria is characterized by an inadequacy for which a combination of social, economic, demographic and technological factors are responsible (Gur 1994; Jiboye 2008; Olotuah 2010; Ibem and Amole 2010). Specifically in Nigeria, the housing problems are enormous and complex, exhibiting apparent and marked regional differences.

It has however been observed that most of the previous research efforts focused mainly on the sociological and anthropological aspects of housing. Rather than providing the basis for which housing planners and policy makers could actualize appropriate users' responsive housing, existing development has been devoid of relevant users' housing preference and socioeconomic adaptations. In essence, the criteria guiding design have been based on developers' standards and not on the housing needs and values of the occupants (Jiboye 2010a; b). The implication of this reality is that users have a stake in determining the type of house they occupy. In fact, it is believed that in any housing development, users have vital roles to play in creating service outcomes by providing relevant information that could ultimately determine the value and level of satisfaction they desire (Bitner *et al.* cited in Oladapo 2006).

It is for this reason and the fact that housing constitutes a major determinant of man and societal development that this study was undertaken. It examines the relationship between the socioeconomic characteristics of public housing tenants and their housing satisfaction in Lagos, Nigeria. The objective is to identify relevant attributes of tenants which can contribute to the improvement and provision of adequate and satisfactory dwellings.

### **Housing Concept, Attributes of Tenants and Satisfaction**

Several definitions have been advanced in literature to explain the concept of housing. The World Health Organization (WHO) in 1961 described housing as the provision of any physical structure used for shelter. This includes all

facilities, equipment services and devices needed for healthful living. In another contribution, a United Nations' report in 1976 defined the concept of housing as that which encompasses all the ancillary services and community facilities which are necessary to human well-being (Jiboye 2008).

Housing is more than shelter; the habitability of a house depends not only on the physical characteristics of the dwelling but also on the social, cultural and behavioural characteristics of the occupants. Furthermore, housing has been conceived as a unit of the environment which has a profound influence on the health, efficiency, social behaviour, satisfaction and general welfare of the community. It reflects the cultural, social and economic values of a society as it is the best physical and historical evidence of civilization in a country (Onibokun cited in Jiboye 2008 and 2010d). Adequate housing therefore contributes to the attainment of physical and moral health of a nation and stimulates the social stability, the work efficiency and the development of the individuals (Adeniyi cited in Jiboye 2008).

It has been argued that the concept of habitable and ideal housing is related not only to the physical, architectural and engineering components of the home, but also to the social, behavioural, cultural and personal characteristics of the inhabitants, the components of the environment (of which the home is a part) and the nature of the institutional arrangements under which the house is managed. In this regard, Onibokun had argued further that the issues involved in housing are more than the availability of physical and structural efficiency of the dwelling. Therefore, a dwelling that is adequate from the physical or design point of view may not be adequate or satisfactory from the inhabitant's point of view. In other words, the house in itself is only one link in a chain of factors which determines people's satisfaction with their accommodation (Onibokun cited in Oladapo 2006 and Jiboye 2008).

The relevance of tenants' socioeconomic characteristics in the actualization of adequate dwellings appears self-evident in the light of the preceding remarks. This essentially is predicated on the need to make housing responsive to user wants (Jiboye 2010c). In other words, housing must satisfy the social values and personal needs of its occupants, it must be accessible and affordable. It is also the case that a dwelling is an important investment which has become a status symbol. Therefore, people's positions in a society, occupational status and other resources, also affect the type of house that is built (Jiboye 2004; Jiboye and Ogunshakin 2010).

The notion of housing or residential satisfaction has been defined from different perspectives. Fransescato *et al.* (1989), defined satisfaction as the measure of people's attitudes towards their residential environment. Similarly, Amerigo (2002) defines it as a function of the pleasure derived from an encounter

with the dwelling, the neighbourhood and the neighbours. Hur and Morrow-Jones (2008) also defined it as the evaluation of features of the physical and social environment which determine people's mobility and quality of life.

In measuring residential satisfaction, different approaches have been developed. However, two basic approaches have been identified for empirical research. One approach is to view residential satisfaction as a criterion of quality of life, while the other is to view it as a predictor of a variety of behaviours. Considering these approaches, the model of residential satisfaction proposed by Francescato *et al.*, described a six-domain taxonomy of predictor variables for resident's satisfaction. These include: objective environmental attributes and individual characteristics, behavioural and normative beliefs, perceptions, emotions, and behavioral intentions. These variables include the physical environment, management, community, and health (Potter and Cantarero 2006).

While explaining the notion of satisfaction, Onibokun (1974) referred to it as a human concept which involves four interacting variables – the tenant, the dwelling, the environment and the management. In this concept, the tenant's subsystem is at the centre, and acts as the recipient of all the feedback from the other subsystem. The dwelling subsystem is the housing unit which forms part of an environment where the unit is located. There is also the management subsystem or component of satisfaction. This subsystem comprises of the entire institutional arrangement under which public housing is administered. Furthermore, the tenant's view of a dwelling is influenced by socio-cultural characteristics, the life style, economic status and the behavioural patterns of the housing inhabitant. It is on this basis that a system approach for evaluating tenants' satisfaction was developed. Thus, according to Fleury-Bahi *et al.* (2008), residential satisfaction is indeed strongly associated with one's attachment to the living space and is generally related to the quality of the space.

Measuring housing satisfaction is important because an understanding of the factors that make a tenants satisfied or dissatisfied can play a critical role in formulating successful housing policies. Certain variables have also been identified in the literature as indicators of evaluating housing satisfaction. By adopting Onibokun's systems approach, the tenant subsystem as the recipient of all the feedback from other housing components could be influenced by three major domains as identified by Potter and Cantarero (2006). These consist of the physical environment, socioeconomic and cultural aspects of life, and public services domains. Under the physical environment are variables such as quality of residence or housing conditions, neighbourhood and community. Under the socioeconomic and cultural aspects of life are family

structure and relations, race, culture, job or employment, and religious affiliation. In measuring the socioeconomic domain, variables such as sex/gender, age, marital status, religion, length of residence, occupation, education, income and household size have also been identified as indicators that could influence the judgment of tenants of their residence (Kearney 2006; Hur and Morrow-Jones 2008; Jiboye 2010b; Aigbavboa and Thwala 2011). Under public services domain are management and maintenance, security, provision of basic amenities and other utilities. Other relevant indicators such as the adequacy of a dwelling as determined by the internal spaces, the structural quality, the amenities and facilities within the dwelling have also been established as determinants of users' residential satisfaction (Jiboye 2008, 2010b). Considering the comprehensiveness and appropriateness of the concept of residential satisfaction highlighted above, tenants' residential satisfaction is measured using the basic framework and approach suggested by Onibokun, and also adopted by Oladapo (2006) and Jiboye (2008, 2010a).

It has however been observed that the nature and determinants of residential attitudes and choices vary among different groups of people, and this variation is influenced by their social and personal values and lifestyles. A study by Hartman in 1963 concluded that residential satisfaction is not discrete but may be related to an entire living pattern and a larger set of social and personal values (Jiboye 2008, 2010a). Evaluating housing satisfaction using these criteria which are related to the factors of the environment, dwelling and management components permits a comprehensive survey of the satisfaction of tenants with their housing. In essence, the relevance of socioeconomic parameters in the determination of tenants housing needs and preferences cannot be overemphasised. However, housing studies (in Nigeria and other developing nations alike) which consider the inputs from human values are negligible. Yet these inputs are relevant prerequisites for the improvement of housing. The present study intends to address these lapses by examining the relevance of tenants' socioeconomic factors on public housing satisfaction.

### **A Brief Background to Public Housing Development in Lagos**

Lagos is located on the south-western coast of Nigeria. The city has a total area of 1,090 square kilometres with about 208 square kilometres covered by water and mangrove swamps. Lagos became the first federal capital following the attainment of Nigerian independence in 1960. The metropolitan area is an urban complex consisting of millions of people from different ethnic, socio-cultural and economic backgrounds.

Since the shift of administrative seat to Abuja, Lagos has remained the major seaport and commercial nerve centre of Nigeria, thereby attracting

migrants of diverse socioeconomic and cultural backgrounds from all over the regions and the nations of the world. Consequently, the city has witnessed considerable expansion (both spatially and demographically) over the years. The most recent official population figure for Lagos released by the national population commission of Nigeria is nine million (NPC 2006).

Official intervention in housing provision in Nigeria began when the Lagos Executive Development Board (LEDB) was created in 1928 to tackle the housing-related bubonic plague at the time. This was done to get rid of the filth as well as the unhealthy living and housing conditions. Since then government’s direct involvement in housing development and delivery has been on the increase. In 1972, the Lagos Executive Development Board (LEDB), Ikeja Area Planning Authority, (IAPA) and Epe Town Planning Authority (ETPA), metamorphosed into what is now known as the Lagos State Development and Property Corporation (LSDPC). Since its inception, it has been entrusted with the execution of several housing programmes to cater for the different categories of Nigerians (Mbali and Okoli 2002; LSDPC 2005). As part of its efforts to reduce the problem of housing shortages in Lagos, the Federal Government also embarked on housing development for different categories of Nigerians residing within the Lagos Metropolitan Area. To achieve this, the Federal Ministry of Housing Urban Development and Environment was established (FHA 1985; UNCHS 2001). Today, public housing schemes developed by both the Federal and State governments exist in virtually every major location within the Lagos Metropolis.

**Data Collection**

The data for this study were obtained through questionnaires administered with selected households within the study area. The questions were structured to obtain relevant information on respondents’ socioeconomic and household characteristics, and their levels of housing satisfaction. Samples were drawn from the available forty public housing estates in Lagos metropolis (See Table 1).

**Table 1: Housing Samples for Questionnaire Administration**

	Total no. of Estates	No. of estates selected for study	Total no. of Houses in selected estates	No. of households selected (10%) of total housing units	Copies of questionnaires retrieved
Total	40	6	12,323	1,232	1,022

Most of the questions used a five-point Likert type of rating scale (Kearney 2006; Potter and Cantarero 2006; Hur and Morrow-Jones 2008). The

responses ranged from very dissatisfied, indicated by 1, to very satisfied, indicated by 5. For the survey, six housing estates were randomly selected from the overall public housing estates in Lagos. Subsequently, 1,232 households representing ten per cent of the total units were systematically sampled from the selected housing estates.

The questionnaires were administered by trained research assistants in housing and urban related disciplines. Respondents were the household heads; and a household head was sampled per building. The data collected were analysed using frequency distributions and Pearson correlation coefficients. The significant level of analysis was determined at either .01 or .05.

### **Analysis and Discussion of Results**

This section provides a brief assessment of the socioeconomic characteristics of households in the study area. Out of the 1,232 questionnaires administered, only 1,022 were retrieved for data analysis. This represents a response rate of 82.9 per cent, which is quite reasonable, according to Idrus and Newman, cited in Oladapo (2006) and Jiboye (2008), who argued that a response rate of 30 per cent is adequate for evaluation purposes.

#### ***Respondents' Socioeconomic Characteristics***

A review of relevant literature shows that the socioeconomic characteristics of respondents include sex, age, marital status, religion, tribe/ethnicity, occupation, educational status, income level and household size among others (Kearney 2006; Hur and Morrow-Jones 2008). The analysis of these variables is presented in Table 2.

As indicated in Table 2a, there were more males (51.3 %) than females (48.7 %) household heads in the sampled public housing. From Table 2b, the majority of respondents in the study area were 40 years old or less. This is based on the fact that 27.3 per cent and 49.3 per cent of the respondents were either 40 years old or less than 40 years old respectively. This suggests that there were more young tenants than the adults tenants who prefer occupying public housing.

The study indicates that there were more married household heads among the respondents in the study area, as 53.9 per cent of the respondents were married, while 39.7 per cent, 2.8 per cent, 2.4 per cent, and 1.2 per cent of them were either single, widowed, divorced, and separated, respectively (Table 2c). This result is expected, as married people traditionally exercise the responsibility of providing housing for their family, and are more likely to prefer ownership of public housing, given its security of tenure.

**Table 2: Socioeconomic Background of the Sampled Respondents**

	Frequency	Percentage
<b>(a) Sex</b>		
Male	524	51.27
Female	498	48.73
<b>Total</b>	<b>1022</b>	<b>100.00</b>
<b>(b) Age</b>		
Below 20 yrs	74	7.24
21-30 yrs	348	34.05
31-40 yrs	279	27.30
41-50 yrs	188	18.40
51-60 yrs	104	10.18
Above 61 yrs	29	2.84
<b>Total</b>	<b>1022</b>	<b>100.00</b>
<b>(c) Marital status</b>		
Single	406	39.70
Married	551	53.91
Divorced	24	2.35
Widowed	29	2.84
Separated	12	1.17
<b>Total</b>	<b>1022</b>	<b>100.00</b>
<b>(d) Religion</b>		
Christianity	660	64.58
Islam	338	33.07
Traditional	18	1.76
Others	6	0.59
<b>Total</b>	<b>1022</b>	<b>100.00</b>
<b>(e) Ethnicity</b>		
Southwest	681	66.63
Southeast	211	20.65
South-south	27	2.64
Middle belt	9	0.88
North	94	9.20
<b>Total</b>	<b>1022</b>	<b>100.00</b>
<b>(f) Occupation</b>		
Student	276	27.01
Self employed	365	35.71
Civil servant	310	30.33
Farmer	12	1.17
Pensioner	57	5.58

Source: Author's survey data

The majority of households followed either Christianity or Islam, which are the two prominent religions in Lagos. The data showed that 64.6 per cent and 33.1 per cent of the respondents from the selected housing estates belong to the two religions (i.e. Christianity and Islam). Only 1.8 per cent and 0.6 per cent of the respondents cited other religions like the Grail message and Rosicrucian sect (Table 2d). With regards to tenants' ethnic origin, the result shows that the majority, (66.6 per cent) of the respondents were from the southwestern part of Nigeria. Some 20.7 per cent of the respondents were from the southeast, 9.2 per cent from the north, 2.6 per cent from south-south, and 0.9 per cent from the middle-belt, respectively. In spite of the high concentration of respondents from the south-west residing within the study area, other ethnic groups are fairly represented (see table 2e). This finding supports that of Ilesanmi (2005), Osasona *et al.*, (2007) and Jiboye (2008), indicating that the city of Lagos is cosmopolitan and as the commercial centre of Nigeria attracts residents from other ethnic regions besides the southwest.

The occupational status of respondents reveals that 35.7 per cent were 'self-employed', while 30.3 per cent were in public or civil service employment. Other categories of occupation include 27.0 per cent students; 5.6 per cent unemployed; 1.8 per cent farmers, and 0.2 per cent of the total samples housewives (Table 2f). This finding suggests that public housing is not exclusively meant for civil or public servants alone, but also caters for the housing needs of other categories of respondents in different occupations – including the self employed.

Date regarding respondents' level of education indicated that 60.8 per cent had tertiary education. 24.2 per cent post-primary (secondary) education, while only a small proportion of the respondents (3.9 % and 11.2 %) had either primary education or no formal education at all. However, the summary of household average monthly income presented in Table 2h shows that the majority (71.9 %) of the respondents earned between N11,000-N30,000 monthly. Some 12.7 per cent of them earned below N10,000 monthly, while 8.3 per cent and 5.2 per cent of the respondents earned between N31,000-N50,000 and N51,000-N100,000, respectively. Only 1.9 per cent of the respondents claimed they earned above N100, 000 monthly. These figures reveal that the average income level of respondents in the sampled area is fairly low, when compared with the quite high level of educational attainment. From this analysis, it is possible that these socioeconomic attributes could influence tenants' housing preferences and the overall housing satisfaction in the study area.

***Tenants’ Housing Satisfaction***

Tenants’ housing satisfaction was examined using the conceptual approach advocated by Onibokun (1974) and adopted by Oladapo (2006) and Jiboye (2008). This conceives tenant’s satisfaction as consisting of four interacting subsystems or variables of the dwelling, environment and management, with the tenant’s subsystem acting as the recipient of all the feedbacks. The result of the ratings by respondents in the study is presented in Table 3.

**Table 3: Respondents’ Satisfaction Level with Housing**  
(to be continued)

Rating		Frequency	Percentage
<b>(a) Satisfaction with Estate Facilities and Amenities (SEFA)</b>			
1	Very dissatisfied	5	0.5
2	Dissatisfied	25	2.5
3	Just satisfied	212	20.7
4	Satisfied	432	42.3
5	Very satisfied	348	34.1
Total		1022	100
<b>(b) Satisfaction with overall housing estate environment (SOHEE)</b>			
1	Very dissatisfied	16	1.6
2	Dissatisfied	43	4.2
3	Just satisfied	556	54.4
4	Satisfied	310	30.3
5	Very satisfied	97	9.5
Total		1022	100
<b>(c) Satisfaction with building spaces (SAWBS)</b>			
1	Very dissatisfied	11	1.1
2	Dissatisfied	100	9.8
3	Just satisfied	298	29.2
4	Satisfied	510	49.9
5	Very satisfied	103	10.1
Total		1022	100
<b>(d) Satisfaction with building interior design (SAWBD)</b>			
1	Very dissatisfied	13	1.3
2	Dissatisfied	24	2.4
3	Just satisfied	393	38.5
4	Satisfied	484	47.4
5	Very satisfied	108	10.6
Total		1022	100
<b>(e) Satisfaction with overall dwelling (SAWOD)</b>			
1	Very dissatisfied	22	2.2
2	Dissatisfied	62	6.1
3	Just satisfied	487	47.7
4	Satisfied	376	36.8
5	Very satisfied	75	7.3
Total		1022	100
1	Very dissatisfied	16	1.6
2	Dissatisfied	49	4.8
3	Just satisfied	258	25.3

**Table 3: Respondents' Satisfaction Level with Housing**

(continues)

(f) Satisfaction with building ventilation (SAWBV)			
1	Very dissatisfied	16	1.6
2	Dissatisfied	49	4.8
3	Just satisfied	258	25.3
4	Satisfied	496	48.5
5	Very satisfied	203	19.9
Total		1022	100
(g) Satisfaction with lighting in dwelling (SALID)			
1	Very dissatisfied	32	3.1
2	Dissatisfied	74	7.2
3	Just satisfied	243	23.9
4	Satisfied	549	52.7
5	Very satisfied	134	13.1
Total		1022	100
(h) Satisfaction with privacy in dwelling (SAWPID)			
1	Very dissatisfied	18	1.8
2	Dissatisfied	28	2.7
3	Just satisfied	209	20.5
4	Satisfied	462	45.2
5	Very satisfied	305	29.8
Total		1022	100
(i) Satisfaction with management involvement and response rate (SAMIR)			
1	Very dissatisfied	97	9.5
2	Dissatisfied	211	20.7
3	Just satisfied	143	14.0
4	Satisfied	140	13.7
5	Very satisfied	46	4.5
-	no response	385	37.7
Total		1022	100
(j) Satisfaction with management's attitude on rules (SAMAR)			
1	Very dissatisfied	65	6.4
2	Dissatisfied	342	33.5
3	Just satisfied	278	27.2
4	Satisfied	194	18.9
5	Very satisfied	53	5.2
-	no response	90	8.8
Total		1022	100

Source: Author's survey data

The results in Tables 3a and 3b indicate that respondents in the study area were generally satisfied with their housing environment. The majority (42.3 % and 34 %), and (30.3 % and 9.5 %) of the respondents in the entire sample were satisfied or very satisfied with their housing estate environment. That is, estate facilities (SEFA), as well as the overall housing estate environment (SOHEE), respectively. 20.7 per cent and 54.4 per cent of the respondents, were averagely or just satisfied. Only a small portion of the entire sample 2.5 and 0.5 per cent and 4.2 per cent and 1.6 per cent indicated that they were dissatisfied or very dissatisfied with their estate environment. This finding supports that of previous studies by Kearney (2006) and Hur and Morrow-Jones (2008), indicating that the quality – in terms of the appearance and the availability of some neighbourhood facilities in planned settlements are major factors influencing residents' satisfaction with their housing environment.

There is an apparent similarity in the result of the survey on respondents' satisfaction with their dwellings (housing units), and that of satisfaction with estate environment discussed earlier. This is because a good proportion of the respondents were generally satisfied with their housing units. The analysis shows that the majority of the respondents were either satisfied or very satisfied with their building spaces (SAWBS) – (49.9 % and 10 %); dwelling interiors (SAWBD) - (47.4 % and 10.6 %); and the overall dwelling design (SAWOD) – (36.8 % and 7.3 %), respectively. Similarly, the majority of the respondents were also satisfied with the building ventilation (SAWBV) – (48.5 % and 19.9 %); lighting in dwelling (SALID) – (52.7 % and 13 %); and level of privacy in their dwellings (SAWPID) – (45.2 % and 29.8 %), respectively.

The analysis showed that a significant proportion of the respondents (29.2 % and 38.5 %; 47.7 % and 25.3 % and, 23.9 % and 20.5 %), respectively, were averagely or just satisfied with their housing units. (See Tables 3c-3h).

The analysis of respondents' satisfaction with the estate management reveals a contrary result from those discussed earlier, as only a small proportion of the respondents (4.5 % and 13.7 %) and (5.2 % and 18.9 %), were either very satisfied or satisfied. Some (14 % and 27.2 %) were averagely or just satisfied. Whereas a significant proportion of the respondents (20.7 % and 9.5 %); and (33.5 % and 6.4 %) respectively, expressed dissatisfaction with the management – in terms of their response and involvement in the estate (SAMIR), as well as their attitude towards enforcing rules and regulations and general conduct (SAMAR). (Tables 3i-3j).

This finding supports Ukoha and Beamish, cited in Oladapo (2006), indicating that the management dimension was a major source of dissatisfaction among public housing tenants in Nigeria.

### ***Relationship between Tenants' Socioeconomic Characteristics and Housing Satisfaction***

This section examines the relationship between tenants' socioeconomic characteristics and housing satisfaction. To determine the level of association among the variables, a Pearson correlation (r) was generated and used to explore the relationship between the tenants' socioeconomic attributes and housing satisfaction, indicated by the environment, dwelling and management components. The result is presented in Table 4.

**Table 4: Correlation between Tenants' Socioeconomic Characteristics and Housing Satisfaction**

Variables	i (Environment)	ii (Dwelling)	iii (Management)
(i) Environment	1		
(ii) Dwelling	.446 <sup>xx</sup>	1	
(iii) Management	.292 <sup>xx</sup>	.340 <sup>xx</sup>	1
(iv) Sex	-.027	-.009	-.027
(v) Age	.037	.045	.148 <sup>xx</sup>
(vi) Marital status	.054	.021	.115 <sup>xx</sup>
(vii) Religion	-.008	.026	-.014
(viii) Ethnicity	.034	-.015	.039
(ix) Occupation	.027	.026	.097 <sup>x</sup>
(x) Education	.066 <sup>xx</sup>	-.002	-.078
(xi) Av. income	-.175 <sup>xx</sup>	-.177 <sup>xx</sup>	-.112 <sup>xx</sup>
(xii) Household-size	-.078 <sup>x</sup>	-.052	-.109 <sup>xx</sup>

The result of the computed correlation coefficient (r) among pairs of the twelve (12) identified relevant variables in the study area shows that satisfaction with estate environment (variable i), had a positive and significant correlation with educational status (variable x) - (coefficient  $r = 0.066$ ;  $p < 0.01$ ). It had a negative but significant correlation with average income

(variable xi) - (coefficient  $r = -0.175$ ;  $p < 0.01$ ) and household size (coefficient  $r = -0.078$ ;  $p < 0.05$ ). However, there is no observed correlation between satisfaction with the environment and tenants' sex ( $r = -0.027$ ; ns), age ( $r = .037$ ; ns), marital status ( $r = .054$ ; ns), religion ( $r = -.008$ ; ns), ethnicity ( $r = .034$ ; ns) and occupation ( $r = .027$ ; ns). Furthermore, the result shows that satisfaction with dwelling (variable ii), is inversely related to average income (variable xi) - (coefficient  $r = -.177$ ;  $p < 0.01$ ). There is also no observed correlation between satisfaction with dwelling and tenants' sex, age, marital status, religion, ethnicity, occupation, education and household size (coefficients  $r = -.009, .045, .021, .026, -.015, .026, -.002$  and  $-.052$ ; all not significant, respectively). The result of satisfaction with housing estate management (variable iii), shows that it had a positive and significant correlations with variables; v (age), vi (marital status), and ix (occupation) - ( $r = 0.148$ ;  $p < 0.01$ ,  $r = 0.115$ ;  $p < 0.01$  and  $r = 0.097$ ;  $p < 0.05$ , respectively). Whereas, it is inversely correlated with variables xi (average income), and xii (household size) - ( $r = -0.112$ ;  $p < 0.01$ , and  $r = -0.109$ ;  $p < 0.01$ , respectively). However, the result shows no observed correlation between satisfaction with housing management and tenants' sex ( $r = -0.027$ ; ns), religion ( $r = -.014$ ; ns), ethnicity ( $r = .039$ ; ns) and education ( $r = -.078$ ; ns) (see Table 4).

## Discussion

The above analysis and findings indicated that the components of housing satisfaction (that is, the environment, dwelling and management) correlate significantly with some socioeconomic characteristics of the respondents in the study area. For instance, the study showed that attributes of tenants such as educational attainment, income and size of households are the significant determinants of satisfaction with the housing environment. It also showed that an increase in the income level of tenant does not necessarily produce a corresponding increase in satisfaction with the dwelling and vice-versa. Attributes such as the age, marital status, occupation, average monthly income and household size of the respondents affect their level of satisfaction with the management component of public housing in the study area. In this case, the level of education, age, marital status and occupation of tenants could stimulate an improvement in the level of satisfaction with the housing. On the other hand, housing satisfaction could be adversely influenced by tenants' income level and household size. Thus, tenants' satisfaction with public housing – particularly within the Lagos metropolis – could be influenced either positively or negatively by these identified socioeconomic variables. In contrast, the study showed that other socioeconomic variables such as sex, religion and ethnic origin of the respondents are not significantly correlated

with housing satisfaction; hence, they are not related and in no way determinants of tenants' satisfaction with public housing in the study area.

The findings of this study strongly reflect and support earlier findings by Onibokun (1974), Onokerhoraye (1977), Gur (1994), and Jiboye (2004, 2008), on the significance of socioeconomic factors regarding tenants' housing preferences and residential satisfaction. The finding thus validates the concept of housing satisfaction advocated by Onibokun (1974), Oladapo (2006) and later by Jiboye (2008), stating that satisfaction is a product of the interrelationship between four components, consisting of the environment, dwelling and management subsystems, with the housing tenants or occupants acting as the recipient of all the feedbacks resulting from the interaction. It also supports the notion of residential satisfaction adduced by Francescato *et al.*, (1989) and later by Potter and Cantarero (2006), stating that satisfaction is a measure of people's attitude towards their residential environment, and is affected by the affective, cognitive and behavioral variables.

### **Conclusion and Recommendations**

This study has examined the relationship between tenants' socioeconomic factors and their housing satisfaction in Lagos, Nigeria. Through its findings, the study has shown that attributes such as age, education, income, marital status, occupation and house-hold size significantly influenced tenants' housing satisfaction; whereas other socioeconomic variables consisting of the sex, religion and ethnic origin of the respondents had no significant influence on tenants' housing satisfaction in the study area.

Based on these findings, it is clear that some personal and household characteristics of the tenants could actually influence their level of residential satisfaction either positively or otherwise with public housing. The findings thus provide an understanding of the factors that can make a tenant either satisfied or dissatisfied with their dwellings; and in other respects to ensure adequate and satisfactory housing for the people. By substantiating Jiboye (2010a and c), the study has also underscored the fact that the absence or non-consideration of relevant attributes of the targeted end-users in housing development could lead to a house which lacks relevance and originality.

Adequate housing provision is a key component of sustainable development (Ibem and Amole 2010) as a necessary prerequisite to achieving sustainable development and also in facilitating improved living conditions for the urban residents. The outcome of this study is considered very significant as it can serve as reliable feedback to government and other stakeholders in formulating appropriate housing development policies that would address peculiar issues relating to the less-privileged who depend so much on the direct intervention of government to provide them with decent and affordable dwellings.

In order to achieve the foregoing, the following recommendations are put forward:

Since adequate housing is a basic human need and a right of every citizen of any nation (Ibem and Amole 2010; Jiboye 2010b), it is the social responsibility of every government to ensure adequate and satisfactory housing to its citizens. In this regard, government should make the issue of housing provision a top priority. When planning for new housing for the people, policy-makers and housing developers should not be guided by unproven assumptions about society, but by established information and data, which include socioeconomic and cultural parameters of the target housing occupants. Such data should not only be quantitatively determined, but should also reveal households' spatial-interactive behaviours, attitudes as well as the demographic indices and details of the users, as earlier pointed out by Gyuse (1993) and Potter and Cantarero (2006). Also, while conceptualizing housing design in terms of the physical character, planners and developers must organize their thinking and design concept to reflect people's diverse socioeconomic preferences and peculiarities.

In order to provide user-responsive housing for the people, the best way to deal with the target population is through direct participation at the planning stage, and the incorporation of their opinions as inputs at the implementation phase of any housing projects. It is on this basis that acceptable and satisfactory dwellings could be designed and developed. Nevertheless, since this study is centred on improving the quality of life and living standard of the people, particularly those in the urban areas, its findings have significant implications for residential planning and the formulation of appropriate housing delivery policies in Nigeria. Therefore, there is a need for more research inputs to complement this present study. Such effort should be directed at providing additional information on the spatial-interactive behaviours and attitudes of the people generally, and the occupants of public housing in particular. The combination of such inputs will ultimately form the basis upon which future housing could be developed in Nigeria and other developing nations as well.

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