



SATISFACTION WITH PUBLIC HOUSING AMONG URBAN WOMEN IN OGUN STATE, NIGERIA

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Abstract: This study investigated satisfaction with public housing amongst women in urban areas of Ogun State Southwest Nigeria. A cross-sectional survey of residents in nine housing estates constructed by the Government of Ogun State between 2003 and 2010 was conducted using structured questionnaire as data collection instrument. Data were analyzed using descriptive statistics and factor analysis. It was observed that most women living in public housing sampled in the study area were low and middle-income earners and not satisfied with their present housing conditions. Although they were most satisfied with housing unit features, the main source of dissatisfaction was poor access to basic services and social infrastructure in the housing estates. The management aspects of the housing schemes, size and security of the dwelling units were the main factors that determined respondents' satisfaction with their housing environment. These findings suggest that the design and construction of housing units to specified standards does not ensure housing satisfaction, rather the management aspect of public housing which includes the location of the estates and provision of basic services and infrastructure are also important in enhancing housing satisfaction among low and middle-income urban women. Therefore, there is a need for improved knowledge of the specific housing needs of women among policy makers and housing developers as well as the involvement of women at all stages of public housing provision in Nigeria.

Keywords: Public Housing; Urban Areas; Women; Housing Satisfaction; Ogun State; Housing Conditions.

1. Introduction

One of the challenges emerging from the process of socioeconomic, demographic,

cultural and political transformations taking place in urban areas in the developing countries is how to plan and

design urban houses and spaces to meet the specific needs of individuals in line with their age, sex, and economic status as well as cultural and religious backgrounds. Most particularly, there is an increasing need for gender sensitive development initiatives as contemporary literature shows that there are gender differences in spatial experience and in all aspects of urban life, including the use of urban social space and patterns of housing (Kanes, 1992; Tran and Nguyen, 1994). It is however observed that in many countries, public housing programmes appear not to capture the specific needs and aspirations of women who according to the UN-HABITAT (2009) are most adversely affected by poor housing conditions than their male counterpart. This development has been attributed firstly to the fact that housing policies and programmes have over the years underestimated the needs, perceptions, and aspirations of specific groups in the family, particularly women (Gilroy and Woods, 1994) and secondly, to overemphasis on household as a unit of planning, which comes with the assumptions that a household is one homogeneous group with housing conditions having the same influence on its

members (Filfil, 1999). Against this background, he argued that households have members that belong to different social groups (e.g. children, men, women, and the elderly) who perform different roles, and thus housing situation influences them differently in line with their different needs and roles in the society. Therefore, Moser (1987) was of the view that since men and women plays different roles in the society and can often have different needs, planning at the level of the household or family should as a matter of necessity accommodate the differences in needs and roles of the members.

In Nigeria, despite the fact that the 2006 National Population Census figure shows that women constitute almost 49 percent of the country's total population (Federal Republic of Nigeria, 2007) and that women are the major consumers of housing services, it is observed that past and present public housing policies and programmes appear to be gender neutral with emphasis on households (see Federal republic of Nigeria, 1991). For instance in Ogun State Southwest Nigeria, beginning from 1958 till date (2013), successive governments have instituted several public housing schemes to provide

housing for its citizens. According to the Ogun State Regional Development Strategy (2008), public housing provision in this State is not only considered as a social service for disadvantaged and vulnerable people, but one from which profits can be made. Although, this suggests that government recognizes the fact that some citizens have special housing needs, the problem has always been how to meet the housing needs of the vulnerable and disadvantaged groups in the society.

Following from the gender neutral disposition of housing policies and programmes in Nigeria as noted earlier, the bulk of literature (Onibokun, 1985; Awotona, 1990; Ibem et al, 2011) on public housing in this country is also gender neutral and tends toward critical evaluation of the performance of previous housing policies and programmes in meeting the needs of the residents. So far, the existing gender oriented housing research literature (Agbola, 1990; Asiyabola and Filani, 2007b) focuses mainly on women as a disadvantaged group in accessing urban housing and social services in Nigeria. To date very few studies have been done to capture women's perception of

their housing environment, especially in government provided housing schemes in Nigerian cities. It is argued that understanding women's satisfaction with public housing schemes is a vital step to gaining insight into the nature of housing and related facilities required by women. Therefore, this paper sought to examine housing satisfaction amongst women in newly constructed public housing schemes in urban areas of Ogun State Southwest Nigeria. The purpose of this paper was to improve understanding of the satisfaction levels of women in public housing and the factors that influence this in the study area. The paper examined the socioeconomic characteristics of women in public housing schemes; the levels of satisfaction with their housing environment and the factors that influence this in the study area. Among other benefits, findings of this study will inform built environment professionals and urban policy makers on the type and design of housing and related services required by urban women in Nigeria. This is considered to be important in ensuring that women benefit maximally from public funded housing schemes, which can enhance their well-being and

capacity to make robust contributions to the socioeconomic development of their families, communities and society at large.

2. Context of Study

Ogun State is one of the six states in South-West geopolitical zone of Nigeria. It is an agricultural, industrial and educational centre located approximately between longitudes $2^{\circ} 45^1$ E and $4^{\circ} 45^1$ E; and latitudes $6^{\circ} 15^1$ N and $7^{\circ} 60^1$ N. The State was created out of the now defunct Western State on April 1, 1976 and has a land area of 16,762 square kilometers, representing about 1.8 percent of Nigeria's total land mass of 924,000 square kilometers (Ibem and Amole, 2011). Official Statistics show that between 1991 and 2006 the population of the State grew from 2,333,726 to 3,728,098, representing about 1.7 times increase over a 15-year period (National Population Commission; Federal Republic of Nigeria, 1998). The 2006 National Population census figures indicate that 49.55 percent of the total population of Ogun State are female and 50.45 percent are male; suggesting that in the shortest possible time women may likely be more in number than men in this State. Going by an annual population

growth rate of about 2.83 percent, it is estimated that by 2025 the State will have a population figure of about 9.3 million of which 6.5 million representing around 70 percent of the total population will be urban dwellers (Ogun State Regional Development Strategy, 2008). This projected increase in population is expected to be as a result of a natural increase, rural-urban migration and the impact of the neighbouring and rapidly growing Lagos Megacity.

Since the creation of Ogun State, the supply of housing has never kept pace with its demand. As at 2007, the supply deficit in the State was put at 240,000 housing units, with annual increase of 7,500 housing units, but recent estimate shows that by 2025 additional 1.55 million housing units will be required to meet the housing need in the (State Ogun State Regional Development Strategy, 2008). To narrow this huge housing supply gap, several public housing programmes have been underway in Ogun State. Indeed, historical fact shows that public housing provision formally began in the territory now called Ogun State with the establishment of the Western Nigeria Housing Corporation (WNHC) in 1958. According to

(Onibokun,1985), Regional Housing Corporations were established by the colonial government in Nigeria to construct and manage public housing estates and also grant soft loans to individuals to build their own houses. The WNHC constructed the Ibara GRA and Igbeba housing estates in Abeokuta and Ijebu-Ode, respectively, which are the two oldest public housing estates in present day Ogun State. After gaining political independence from Great Britain in October 1960 and the Nigerian civil war that took place between 1967 and 1970, the then Federal Military Government of Nigeria established the Federal Housing Authority (FHA) in 1970 to construct houses for low-income earners on rental basis across the country. The UN-HABITAT (2006) report shows that the FHA in the Site-and-Service Scheme in the then newly created States of Bauchi, Benue, Gongola, Imo, Niger, Ondo as well as Lagos provided 893 serviced plots in Ogun State in 1976. This was followed by the provision of 512 housing units in this State also by the FHA in the National Low-Cost Housing Programme of the civilian government of Alhaji Shehu Shagari (1979-1983) (Ogun State Regional Development

Strategy, 2008).

At the inception of Ogun State, the Ogun State Ministry of Works and Housing was the only State Government-owned housing agency in operation. However, in 1977 the Ogun State Government established the Ogun State Housing Corporation (OSHC) to increase the availability of residential housing, commercial and industrial buildings in urban areas of the State. Within the first year of its creation, the OSHC constructed 200 housing units at Oke Ata in Abeokuta and another 350 housing units in Ijebu Ode on rental basis (Ogun State Regional Development Strategy, 2008). In September 1984, the State Government also created the Ogun State Property and Investment Corporation (OPIC) to undertake the business of providing urban housing on commercial basis in this State. Ibem (2012) observed that since the creation of the OSHC and OPIC, these two agencies have been involved in public housing provision in major urban areas of Ogun State. However, like in many states in Nigeria, despite the involvement of the aforementioned agencies in housing provision in the past few decades, public housing has continued to suffer in Ogun State, essentially due to under-

investment, corruption and institutional failures as the need for quality urban housing grew alarmingly, especially among low-income earners.

In May 1999, when democratic government was restored in Nigeria, the Federal and State Governments Nigeria began the process of reforming the housing sector through the New National Housing and Urban Development Policy (NNHUDP) in 2002. According to Aribigbola (2008), this policy was designed to ensure that all Nigerians have access to decent, safe and sanitary housing at affordable cost through private sector-led initiatives. Drawing on this policy framework, the Ogun State Government also initiated housing sector reforms in 2003 with the goal of encouraging government and private sector collaborations in public housing provision in the State. Consequently, a separate Ministry of Housing was carved out of the old Ministry of Housing and Transport. Two other parasatals: Gateway City Development Company Limited (GCDCL) and Gateway Savings and Loans Limited were also established. Presently, public housing in Ogun State is provided by Federal and State government agencies. The federal agencies involved are the

Federal Ministry of Housing and Urban Development, and Federal Housing Authority (FHA), while the State government agencies engaged in public housing are the Ogun State Ministry of Housing (OSMOH), Ogun State Housing Corporation (OSHC), Ogun State Property and Investment Corporation (OPIC) and Gateway City Development Company Limited (GCDCL) as well as their private sector collaborators. Although, Ibem (2012) noted that between 2003 and 2010, the Ogun State Ministry of Housing and the parasatals under it have constructed over 1,411 housing units representing about 22 percent of the total public housing stock in the State, to date, little is known of the extent to which women are satisfied with the housing environment in the different public housing estates in Ogun State. This study was an attempt to narrow this gap in knowledge.

3. Literature on Housing Satisfaction

One important area of urban planning, architecture and housing development that is witnessing an explosion of research activities is residents' satisfaction with built/constructed facilities; hence, Kaitila (1993) observed

that the literature is replete with a plethora of research findings on this subject matter. Ogu (2002) noted that housing or residential satisfaction essentially evaluates residents' perceptions of and feelings for their housing units and surrounding environment; suggesting that the two are interchangeable concepts that serve the same purpose in housing research. Indeed, housing or residential satisfaction has been defined as a measure of the difference between the residents' actual and desired housing and neighbourhood situation based on their needs, aspirations and expectations (Galster and Hesser, 1981) as well as how residents respond to their housing environment (Lu , 2002). As Mohit and Nazyddah (2011) put it *'housing satisfaction is the degree of contentment experienced by an individual or a family member with regard to the current housing situation'*. They further explained that housing satisfaction is essentially a non-economic and normative evaluation approach for assessing the quality of housing environment. In this paper, housing satisfaction is therefore used to describe residents' satisfaction with their dwelling

units and surrounding neighborhoods in public housing schemes in urban areas of Ogun State Southwest Nigeria.

From the existing literature, several authors have offered reasons why studies on housing or residential satisfaction are important to urban planners, housing designers and developers as well as policy makers. Firstly, they are used as predictor of individuals' perception of their overall quality of life (Galster, 1985), residents' incipient behaviors such residential mobility (Adriaanse, 2007; Mohit et al., 2010) and housing modification (Lee and Park, 2010). Secondly, housing satisfaction studies are used as an ad hoc assessment of the performance of housing schemes in meeting the needs of target population (Onibokun, 1974). Finally; they also serve as feedbacks to built environment professionals and policy makers on ways for improving housing policy formulation, housing design practice and the quality of residential environment (Formoso and Jobim, 2006). It can be concluded from the above that housing satisfaction assessment is a useful design and planning tool as it sheds light on the performance of housing schemes, present housing conditions of people,

residents' housing preferences and perception of which aspect(s) of their housing environment has greater impact of their lives.

Theoretically, Onibokun (1974) viewed housing satisfaction as comprising four key interacting objective components: the residents, dwelling units, surrounding environment and the management components, while Galster (1987) noted that the level of housing satisfaction is determined by the characteristics of the individual, the housing unit and surrounding neighborhood. Lee and Park (2010) also argued that residential satisfaction deals mainly with perception of housing and neighbourhood satisfaction. However, most recently, residents' satisfaction with social housing in Selangor, Malaysia, was assessed based on the dwelling unit features, housing unit support services, public facilities, social environment and neighbourhood facilities (Mohit and Nazyddah, 2011). It can be inferred from the above that specific features of dwelling units and neighborhoods contribute significantly in determining housing satisfaction. In fact, studies from the different countries, including Papua New Guinea (Kaitila, 1993), Nigeria

(Ukoha and Beamish, 1997; Jiboye, 2009; Lement and Kayode, 2012; Ibem and Amole, 2012), the USA (James, 2007) and Malaysia (Salleh, 2008; Mohit et al, 2010; Mohit and Nazyddah, 2011) have shown that residents have been satisfied or dissatisfied with various aspects of their dwelling units and neighborhoods. It has also been established in the literature that among other factors, the socioeconomic characteristics of residents, including sex, income (Varady and Preiser, 1989), age (Galster, 1987), marital status, income, education background (Ibem and Amole, 2012), length of stay and tenure status (Ogu, 2002) have remarkable influence on the levels of residents' satisfaction with public and private housing schemes in the different countries.

With regards to the influence of sex on housing satisfaction, Amole (2009) asserted that the role of sex in user responses to housing environment has not often been conclusive in the literature; noting that more studies are required in this area. However, the very few existing studies view neighborhood and housing satisfaction either in relation to gender or to very specific groups of women. For instance, Galster and Hesser (1981) found out that female

household heads are less satisfied with their housing environment than their female counterpart, even when other characteristics are held constant. The study by Digregorio and Shlay (1985) revealed that whereas housewives preferred suburbs that signify status and at the same time provide access to facilities and public transportation, single women preferred urban neighborhoods that are diverse in household composition; and employed women preferred neighbourhoods in inner ring suburbs or in the central city. Sheila (1990) also reported that amongst 161 female heads of single-parent families, housing unit features were prime determinants of housing satisfaction, while Cook (1988) found out that suburban women were more satisfied with their neighborhoods than urban women. Also Venter and Marais (2006) observed that in Bloemfontein, South Africa, there were some differences in terms of the satisfaction levels of female-headed and male-headed households, but both male and female household heads showed preference for smaller houses with better services.

The foregoing review shows that although prior studies suggest

that differences exist between housing satisfaction among male and female, the different studies view housing satisfaction from 'the residents' point of view with very little consideration on satisfaction of men and women as distinct social groups. It also appears that very few studies have explored housing satisfaction among urban women, especially in public housing schemes. Among these few studies, none has examined the aspects of the housing environment that have greater influence on women's satisfaction with public housing. To address gap in research, this paper is based on the notion that women's satisfaction with public housing encompasses satisfaction with their housing units, the neighbourhood facilities and environment as well as management aspects of the housing schemes. Management in this context includes decisions made by housing providers during the planning, designing and construction stages of the housing schemes as well as the existing management and maintenance practice at post-occupancy stage.

4. Research Method

Data presented in this paper is part of the data derived from a general study carried out to

evaluate public housing in Ogun State Southwest Nigeria. The study was based on cross-sectional survey of residents in selected housing schemes provided in study area by four key government agencies: Ogun State Ministry of Housing (OMOH), Ogun State Housing Corporation (OSHC), Ogun State Property and Investment Corporation (OPIC) and Gateway City Development Company Limited (GCDCL) between 2003 and 2010. Residents in nine of the twelve newly constructed public housing estates: OGD-Workers Housing Estate, Laderin; Media Village, OGD Housing Estate, Asero; Presidential Mandate Housing Estate, Olokota and Obasanjo Hill-Top GRA Housing Estate all in Abeokuta; as well as those in OGD Housing Estate Itanrin, Ijebu-Ode, Ogun State Housing Corporation Housing Estate, Ota; OGD-Sparklight Housing Estate, Ibafo-Gateway City and OPIC Housing Estate, Agbara, participated in the survey. These housing estates were purposely selected for this study because, firstly, they have completed and occupied housing units, and secondly, they comprise housing units for low, middle and high-income people.

Of the 1,411 housing units

completed in the housing schemes, only 709 housing units were occupied at the time of the survey; and thus, the random sampling technique was used in selecting 670 units, representing about 95 percent of the occupied housing units for the study. The survey was conducted between December 2009 and February 2010 with data obtained from the respondents using questionnaire as the key data collection instrument. In each household sampled, only one person: the man or his spouse was given a questionnaire to fill, depending on who was present at time the researchers visited their housing units. A total of a 452 valid questionnaires representing about 68 percent of the distributed questionnaires were retrieved. These comprised 295 male and 157 female respondents. Since the focus of the current study is on the female respondents, only the data contained in 157 questionnaires were used in this paper.

The structured questionnaire designed and used to elicit information from the respondents had three main sections. 'Section-1' comprised nine items: sex, age, education, income, marital status, tenure status, employment sector, length of stay and household

size, which are related to the socioeconomic characteristics of the residents. 'Section-2' had items on objective housing characteristics, while 'Section-3' comprised 31 items on residents' satisfaction with housing unit characteristics, management and neighbourhood environment of the housing estates (see Table 2). Responses on satisfaction with the 31 housing attributes were measured using a Likert-type scale ranging from '1' for very dissatisfied; '2' for dissatisfied; '3' for neutral; '4' for satisfied to '5' for very satisfied and '0' for No response. To ensure the validity of findings of the research, the instrument (questionnaire) was pre-tested among residents of Covenant University, Ota-Nigeria Staff Quarters, while the test for internal consistency and reliability of the scale of measurement used in assessing housing satisfaction among the respondents was conducted using the Cronbach's alpha. The result showed Cronbach's alpha 0.891, which is more than 0.7 recommended as acceptable reliability coefficient.

Data were subjected to two basic types of analysis. The first was the descriptive statistics, which generated percentages and frequencies of the respondents' socioeconomic characteristics

and their Mean Satisfaction Scores (MSS). The MSS was used to examine the respondents' overall satisfaction with their housing situation. Mean Attribute Scores (MAS) were also computed for the 31 residential attributes and the factors that determine respondents' satisfaction with their housing situation. These were used to examine respondents' satisfaction level with each of the attributes and the factors identified in the second stage of the analysis. The second type of analysis conducted was factor analysis with principal component and Varimax rotation methods. The 31 responses on residential satisfaction were reduced to a smaller number of factors. This was used to assess the key factors affecting residents' satisfaction with their housing environment.

5. Result and Discussion

i. Socioeconomic Characteristics of the Respondents

Table 1 is an illustration of the socioeconomic characteristics of the 157 female respondents in the survey. The result reveals that the majority of those sampled in the housing estates were educated and married women within the age bracket of between 31 years and 45 years. Although, their responses on

income may be biased, the result shows that the majority (53 percent) of the respondents were of the middle-income earners and 68 percent were public sector workers. The proportion of the employed was high (95.5 percent), while very few (4.5 percent) were unemployed. Also, the majority (68 percent) of the respondents lived in owner-occupied houses, while 32 percent were renters. As the result suggests most of the respondents lived in 2-bedrooms semi-detached and 3-bedrooms

bungalows. This result was to be expected as these were the most common building types provided in social housing schemes in the study area. Also 83 percent of the women and their families had lived in their present residences for between one year and three years, while the majority (76 percent) of them had household size of more than three persons; suggesting that they have children and/or relations living with them.

Table 1: Socioeconomic Characteristics of Respondents

	Frequency (n=157)	Percentage
Age Group in Years		
No Response	2	1.30
31-45	122	78.0
46-59	29	19.0
60 and above	4	3.0
Marital Status		
Never married before (Single)	4	3.0
Married	145	92.0
No longer married (Widowed or Divorced)	8	5.1
Highest Level of Education		
Primary Education	9	6.0
Secondary Education	0	0
Tertiary level of Education	148	94.0
Employment Sector		
Public	107	68.0
Private	43	27.0

Unemployed	7	5.0
*Average Monthly Income		
(Naira)		
No Response	13	8.3
Below ₦38,000 (Low-income)	50	32.0
₦38,000-₦144,999 (Middle income)	83	53.0
₦145,000 and above (High-income)	11	7.0
Length of Stay in the Residence		
Less than 1 year	19	12.0
1year-3years	131	83.0
4years +	7	5.0
Tenure Status		
Rented	50	32.0
Owner Occupied	107	68.0
Household Size		
Not more than 2 persons	13	8.3
3 Persons	25	16.0
4 Persons	64	41.0
More than 4 persons	55	35.0
Size of Housing Unit Occupied		
1- Bedroom	33	21.0
2-Bedrooms	54	34.0
3-Bedrooms	63	40.0
More the 3-Bedrooms	7	5.0

***1 US\$= ₦ 155 as at May, 2012; Monetized Federal Public Sector Salary Scale, 2009**

The above result vividly shows that most women residing in newly constructed public housing schemes in urban areas of Ogun State are educated career women within the child

bearing age. This goes to suggest that the majority of them are combining home management with career pursuit. It is therefore not surprising that most of them were middle and

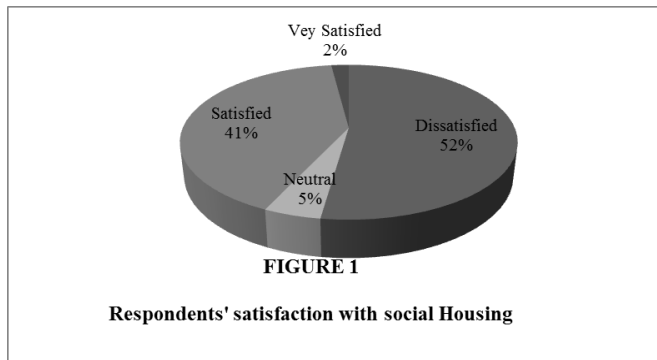
low-income earners; while very few were of the high-income class. It is also evident from the result that very few of them were unemployed; suggesting that either they are full-time housewives or retirees. We can also see from result that very few (5 percent) of the respondents were single parents and that less than 10 percent of the households sampled were women-headed households. Evidence from the study also reveals that most women encountered in the survey lived in owner-occupied houses; which is an indication that public housing in the study area in recent time is promoting homeownership. Based on the result of this study, it can be concluded that women in newly constructed public housing schemes in the study area were mainly middle-aged, middle-income educated public sector workers; implying that poor and uneducated women have not benefitted from public housing provisions in recent times in the study area.

ii. Respondents' Satisfaction with Housing Environment

The result showed mean satisfaction score of 2.96; indicating that the respondents were not satisfied with their housing environment. Figure 1 is an illustration of the percent

of the respondents' levels of satisfaction. The result shows that the majority (52 percent) of the respondents expressed dissatisfaction with their housing environment; while 43 percent were satisfied. However, very few (5 percent) indicated that they were neither satisfied nor dissatisfied with their housing environment. This result generally shows that the majority of women sampled were dissatisfied with their housing condition in housing schemes constructed by the Ogun State Government between 2003 and 2010; while very few were not willing to talk about their level of satisfaction with their current housing situation for reasons best known to them. In all, the result suggests that there is a wide gap between what the women expected or aspired to have in terms of their housing needs and preferences and what is actually provided in public housing schemes in the study area within the period under review. This implies that the quality of housing provided in these schemes is below the expectations of most women living in the housing schemes sampled. This may have adverse implications for the quality of life and productivity of the respondents and their family

members.



It is obvious from this result that housing provided by the Ogun State Government between 2003 and 2010 is not adequate in meeting the housing needs of the category women who benefitted from the schemes. This implies that women's housing preferences were not adequately captured in these housing projects in this State. Going by the observation that the majority (76 percent) of the respondents had household size of four persons and above, one possible reason for the degree of dissatisfaction shown by the respondents can be linked to findings by Onibokun (1976) suggesting that larger household size has negative influence on housing satisfaction. Another possible explanation for this result is that these women were rarely consulted for their input in these schemes. This is probably because very little is known about their socio-spatial

needs and peculiarities when it comes to housing design; as a result their specific housing preferences were not taken into consideration by public housing providers. It thus appears that this finding is in line the view by Gilroy and Woods (1994) indicating that housing policies and programmes in developing countries have over the years underestimated the needs, perceptions, and aspirations of specific group in the family such as women.

Furthermore, Table 2 also shows the respondents' satisfaction level with each of the 31 housing attributes investigated. It is evident from this result (Table 2) that the level of privacy in the residence has the highest Mean Attribute Score (MAS) of 3.96, followed by sizes of bedrooms (3.68), sizes of living and dining spaces (3.66) and level of noise in the

housing estates (3.49), respectively. This suggests that these are the first four residential attributes the respondents are most satisfied with. This result was to be expected as women by their nature like are more sensitive to privacy and sizes of spaces than men. However, the result also reveals that they were least satisfied with proximity of their homes to shopping facilities (1.88); healthcare facilities (1.98) and the prices of goods and services within and around the housing estates (1.97). Again, this result is not a surprise as women appear to be more shopping oriented and may have more reasons to visit health care facilities more often than men. From Table 2 it is also evident that of the eight factors extracted in the factor analysis, the respondents appear to be most satisfied with the level of privacy in their residences and quietness of the housing estates (Factor 7), which shows the highest MAS of 3.73. This is followed by the size of residence (Factor 3) and natural lighting and ventilation in living and sleeping areas (Factor 5). The respondents however expressed very low level of satisfaction with location of the housing estates (Factor 2), which also shows the lowest MAS of 2.33. Going by the observation that

the majority of respondents' lived in 2-bedrooms and 3-bedroom apartments and that they expressed satisfaction with the sizes of their dwelling units, it can be inferred that the respondents have preference for a smaller houses. This is against all expectations, since most of them have household size of over four persons. However, since most of them are low and middle-income earners, it is understandable why they prefer these sizes of housing units. This result can also be explained within the context of the observation made earlier indicating that the 2-bedrooms and 3-bedrooms apartments were the most available sizes of housing units provided in public housing schemes in the study area.

The result generally shows that the respondents were most satisfied with the architectural design of the dwelling units and quietness of the housing estates, but were least satisfied with the management aspects of public housing provision, including the location of the estates in proximity to basic social infrastructure and urban services, the provision of utilities, maintenance of common facilities and cleanliness of the housing estates, among others. This

result is indeed a true reflection of the state of buildings and the physical environment of the housing estates at the time of the survey. In fact, it was observed that whereas the housing units were properly designed and constructed with durable materials and structurally sound, basic social infrastructure (e.g. educational, recreational, health, shopping facilities and others) were virtually non-existent in most the housing estates investigated. Arguably, the result suggests that more attention is given to the architectural design and actual construction of housing units than the provision basic social infrastructure and urban services in public housing schemes in the study area. This may not be unconnected with the rising cost of provision of basic infrastructure in housing schemes and general poor urban infrastructure base in urban areas in Nigeria.

iii. Factors affecting the Respondents' Satisfaction with Public Housing

Result of the exploratory factor analysis using principal component and Varimax rotation method showed that the Kaiser-Meyer-Olkin measure of sampling adequacy for the measurement was 0.852, which is higher than the recommended

index of 0.60. Also displayed in Table 2 are the eight factors with Eigen values greater than one which accounted for about 68 percent of total variance across the 31 variables. The management factor appears to be the most important in determining housing satisfaction among women in the public housing schemes, explaining about 15 percent of the total variance across all 31 variables. Based on the factor loadings, the items of this factor are related to the provision of utilities, recreational facilities, rules and regulations related to residency in the estates, maintenance and management of facilities in the estates, cleanliness of the estates and cost of housing in the estates. The next important factor, which also explained 13.2 percent of the total variance, was the location of the housing estates, which is also related to management aspect of public housing as noted earlier. Variables loaded in this factor are related location of the housing estates in proximity to social infrastructure such as children's, school, shopping, healthcare facilities as well as place of work and urban services, among others. Also of strong importance was the size of residence, relating to the size of main activity (e.g. living,

sleeping, eating, and cooking) areas and the number of sleeping and service areas, which accounted for 12 percent of the total variance. Other factors in the order of their importance included security of residences (6.4 percent) and satisfaction with lighting and ventilation in living and sleeping areas (6 percent), location and the aesthetics of dwelling units (5.58 percent), social environment of housing estates (5 percent) and lastly level of privacy in the dwelling units and quietness of the housing estates (4.3 percent).

The above results seem to be in support of findings of previous

studies (Digregorio and Shlay,1985) indicating that housewives prefer residential environment that provides access to public facilities and also Sheila (1990) which indicates that for female heads of single-parent families, housing unit features were prime determinants of housing satisfaction. Therefore, it can be concluded from this result that the most important factors which determine housing satisfaction among women in public housing in Ogun State are the management aspects of public housing provision, the sizes and security of housing units.

Table 2: Factor Analysis of Respondents’ Satisfaction with Housing Environment

	MAS	Factor Loadings	Eigen value	% of Variance	Cumulative %
Factor 1: Management of Housing Estate	2.85		4.604	15.0	15.0
Water Supply and Sanitary Services	2.41	0.657			
Electrical Services	2.48	0.713			
Provision of Recreation Facilities	2.00	0.608			
Rules and Regulations in the Estates	3.41	0.617			
Management and Maintenance of facilities	2.71	0.792			
Cleanliness of Housing Estates	3.08	0.783			
Cost of Housing	3.41	0.640			
Design of Residence in relation to occupants’ culture	3.27	0.450			
Factor 2: Location of Housing Estates	2.33		4.088	13.2	28.2

Proximity to Shopping facilities	1.88	0.747			
Proximity to Medical Facilities	1.98	0.704			
Proximity to Children’s Schools	2.46	0.723			
Proximity to Markets	2.23	0.769			
Prices of goods and services in Estates	1.97	0.589			
Business and Job Opportunities	2.21	0.610			
Proximity to Place of work	3.22	0.606			
Proximity to urban services & infrastructure	2.70	0.601			
Factor 3: Size of Residence	3.39		3.644	12.0	40.2
Sizes of Living and Dining Spaces	3.66	0.795			
Sizes of bedrooms	3.68	0.811			
Number of Bedrooms in the Residence	2.99	0.510			
Size of Cooking and Storage spaces	3.42	0.650			
Size of Residence	3.37	0.696			
Number of Baths and Toilets	3.18	0.595			
Factor 4: Security of Residence	3.21		1.970	6.4	46.6
Type of Building Materials Used	2.99	0.601			
Security of life and Property	3.42	0.520			
Factor 5: Lighting and Ventilation Living & sleeping spaces	3.36		1.783	6.0	52.6
Natural Lighting and Ventilation in Living & Bedrooms	3.36	0.529			
Factor 6: Location and Aesthesis of Residence	3.34		1.728	5.6	58.2
Location of Residence in the Estates	3.43	0.867			
External Appearance of Residence	3.24	0.489			
Factor 7: Social Environment	3.12		1.517	5.0	63.2
Level of Crimes and anti-social activities	3.38	0.828			
Level of communal activities in the Estates	2.85	0.555			
Factor 8: Privacy and Quietness of Residence	3.73		1.344	4.3	67.5
Privacy in the Residence	3.96	0.621			
Level of Noise in the Housing estates	3.49	0.741			

6. Conclusion

This study has shown that women living in newly constructed social housing schemes in Ogun State Southwest Nigeria were generally not satisfied with their housing situation; and that the management aspects of the housing schemes, the sizes and security of dwelling units were the main factors that determined their satisfaction with housing provided in the schemes. This implies that public housing provided recently by the Government Ogun State did not adequately capture the housing preferences and needs of low and middle-income women. Hence, more research into housing preferences and satisfaction of women is required to provide reliable data for future public housing schemes. It also calls for the involvement of women and/or organizations representing them at all stages of planning and execution of public housing projects in the study area. Another issue emerging from this study is the need for policy makers and housing providers to recognize that the design and construction of housing units to

specified standards are not enough, rather the maintenance of existing facilities, provision of housing services and social infrastructure in social housing schemes are also important in meeting the needs of women and enhancing their satisfaction levels with such schemes. Similarly, we also understand from this study that for improved level of satisfaction of urban women with public housing, housing policies and programmes should place emphasis on the management aspects of, and the sizes and security of housing units provided in social housing schemes. Finally, in anticipation of increasing population of women in the study area in particular and Nigeria in general, it is particularly important for urban housing development to begin to reflect the needs and aspirations of this group of citizens as identified in this paper; but most importantly, it is imperative that contemporary housing policies and programmes are developed to equally meet the needs and preferences of the different social groups in the society.

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