RESEARCH ARTICLE

Residential Housing Satisfaction in Public Housing Estates in Calabar, Cross River State, Nigeria

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Abstract
The paper examined the satisfaction level of residents in public housing estates in Calabar, Cross River State Nigeria. The variables for establishing the satisfaction level were broadly categorized into three (3); housing location, physical facilities and environmental factors. However, five (5) public residential estates were selected for data collection. Data were elicited using 100 copies of questionnaire. Questionnaire were given to household heads and all were returned and used for analysis. Analysis were carried out using frequencies and relative satisfaction index (RSI). With RSI, the satisfaction level of the residents with the housing area was determined. Furthermore, a five point likert scale was adopted in collecting data from residents within the housing area. Findings revealed that the residents of public housing estates were not completely satisfied with the housing environments. For instance, it was shown that the residents were fairly satisfied with the housing location. Similar results were obtained on both the environmental and physical facilities. Variables such as proximity to service, waste disposal/management, water supply among others were observed to influence the level of satisfaction of residents with the housing area. It was also observed that facilities and amenities were drastically deteriorating within public residential estates and the aesthetic quality of the housing environment is facing serious distortion. Based on these observations, it was suggested that facilities and amenities that go along to making housing environments habitable and conducive be provided and deteriorating facilities be upgraded. There should also be regular renewal of the housing environments in public estates to avoid deterioration and dilapidation of structures within the housing environment.

Keywords: Housing environment; housing location; level of satisfaction; physical facilities; residential housing

Introduction

Housing refer to buildings that function as homes, offices and other structures that are capable of providing shelter to humans for varied purposes. Housing range from simple dwelling units to complex fixed structures of wood, brick, concrete and other related materials containing bedrooms, bathrooms, kitchen, living room, dining room, water and plumbing system, power and electrical system as well as cross ventilation (Salisu, Odulaja, Ogunseye, Fasina and Okunubi, 2019). Furthermore, housing reflect the socio-cultural and economic values as well as historical evidences of civilization of any society. Eteng (2016) opined that housing units play inevitable roles in determining the comfort of it residents. He explain that the quality of housing unit occupied by residents is a useful tool in defining the socioeconomic class of such persons in the society. Salisu *et al.,* (2019) established a link between the type/quality of the housing occupied and the health/wealth of residents and places. Hence, high income earners usually demand for housing with better facilities than the medium and low income earners. However, the quality of housing occupied plays an intricate role in the survivability of the residents of the housing unit. For instance, Akpu and Sarah (2015)

showed that in Kano metropolis Nigeria, the type, setting, facilities and nature of housing units occupied by residents increased the susceptibility/vulnerability of residents to certain health concerns including cerebrospinal meningitis. In all, housing play multifaceted roles in the determination of not just the health but also the general welfare of residents of the housing structure.

Given the importance of housing, governments in both developing and developed countries have approached housing development and provision for it citizens using different strategies and techniques. In Nigeria, the government have ventured into public housing development with the aim of closing the housing need gap due to the fact that housing demand has been on the increase as a result population growth especially in urban areas (Eja, Inah, Yaro and Inyang, 2011). Basically, the increase in human population imply that there is corresponding increase in housing demand. In recent times, governments have adopted the development of public housing system in order to close the housing need gap and provide affordable housing to its citizens. Specifically, public housing units the world over are developed and encouraged in order to improve the living conditions of residence or citizens as well as ensure all citizens own or have direct access to decent, safe and clean housing in healthy environments with adequate

infrastructural services at affordable cost, and with secure tenure (Federal Republic of Nigeria, 2012). To this end, several public housing units have been developed in major urban centres of Nigeria. For instance, there exist several public housing projects in Abuja, Lagos, Kano, Port Harcourt, Kano and Calabar. While there have been public housing development and subsequent allocation to citizens, the issue of housing satisfaction by the residents of the public housing schemes has not been given sufficient attention in existing studies. Holistically, public housing satisfaction measures the extent to which occupants dwelling units feel that their housing facilities help them to achieve their goals. Satisfaction therefore explain the level to which the needs and aspirations of occupants of the housing units are met.

Basically, the sole aim of venturing into public housing development is to meet the needs and aspirations of the occupants of the structure. This suggest that although public housing provision is ventured into by the government applying various low-cost strategies to ensure the availability of housing units, certain facilities/amenities need to be provided to increase the level of satisfaction of the housing occupants (Jiboye, 2020). In other words, public housing development policies seek to ensure the setting up of housing units that will satisfy the housing occupants. In existing literature, several factors have been identified as indicators to satisfaction of residents in public housing units. Such facilities include sanitation facilities, size of rooms, height of buildings, security and proximity to other places of interest as well as availability of water, roads and waste disposal/management system (Mohit and Azim, 2012; Kuma, 2017; Adisa and Amole, 2021).

In Cross River State, there exist several public housing estates that were developed by governments at various levels. The housing units which were provided for low-cost purposes were intended to provide maximum satisfaction to the residents of the properties. However, available studies have not been able to give explicit discussions on the levels of satisfaction of residents with the properties. This makes it difficult to formulate polices, actions and strategies that will be useful in housing upgrading and sustainability. Basically, the essence of embarking on public housing development is to close the housing need gap through providing affordable housing units that are capable of sustaining humans while providing shelter and shade from the extremity of weather, rain and other factors that are capable of discomforting humans outside the housing facility. The inability of studies to ascertain the extent to which residents are satisfied with public housing units in the study area suggest that there is a gap in knowledge that requires to be filled. Against this backdrop, the paper was conceived with a view to understanding the level of satisfaction of residents of public housing estates in Calabar and further make recommendations that will lead to sustainable public housing development.

Literature Review

Housing has been conceived in various ways by scholars. Basically, housing is more than a mere shelter. It encompasses the totality of the residential environment that man uses for shelter. It is a structure that is highly needed for man's physical, mental health and social well-being. Housing is a basic need in the daily needs of individuals. It is a very essential commodity and it is highly needed for survival of man. In all, humans desire housing units for different purposes. However, attempts by past government administrations have been made to venture into public housing development being that the financial implications of embarking on housing development is huge hence, the need to embark on low-cost housing development by governments has become obvious. In public estates, the housing units are basically for residential accommodation. However, the satisfaction levels have been a subject of interest in available studies. In Hulhumale, Maldives, Mohit and Azim (2012) assessed residential satisfaction of occupants with public housing. They based their assessments on the physical features and service provision within the housing units as well as the public facilities and social environments within the housing area. Their study highlighted that majority of the residents were only slightly satisfied. However, satisfaction levels were observed to be higher for services provided and public facilities when compared to satisfaction with physical space within the housing unit and the social environment within the housing area. Their study suggested provision of houses with necessary facilities so as to boost satisfaction among residents.

Mammadi, Baba, Tukur, Muhammad and Abdullahi (2020) evaluated residents' satisfaction with public housing in Maiduguri metropolis. Specifically, their study assessed the levels of quality of housing components, occupants' preference and satisfaction. They adopted the quantitative approach and obtained data through questionnaire survey on household heads of the housing estate. They further used descriptive and inferential statistics such as mean ranking, frequency distribution and multiple regression in carrying out data analysis. They noted that the quality of building component as well as the condition of bedrooms, living rooms, roofs and kitchen were ranked as very good while stores, dining areas, garage and toilets were simply in good state. They further noted that public housing quality and preference significantly influence occupants' satisfaction in Maiduguri metropolis. Based on their findings, they suggested that occupant peculiarities be integrated in the design and development of housing estates.

Salisu *et al.* (2019) examined residents' satisfaction with public housing in Lagos, Nigeria. They specifically sought to determine the satisfaction of residents with housing units and location through assessing the level to which the residents were satisfied with the quality of public housing. They relied on questionnaire administration for data collection purposively choosing

five public housing estates. Their study noted that residents were mostly dissatisfied with the units and location of public housing estates. They also noted that residents were dissatisfied with space allocation, quality of services and infrastructural facilities. They equally observed that residents were dissatisfied with most physical, social/behavioral, public facilities/functional as well as economic/environmental components. Furthermore, Salisu *et al.,* (2019) pointed out that poor structural design, maintenance policy, unstable power supply, poor parking lot, poor drainage and sewage systems were the problems affecting public housing residents.

Similarly, Jiboye (2020) examined public housing satisfaction in Lagos, Nigeria, His study employed a conceptual model with three housing components consisting of the environment, dwelling and management subsystems. He used multiple regression and analysis of variance (ANOVA) in explaining the correlate levels of variables. His study indicated that tenants' satisfaction level with both the environment and dwelling components of housing was above average, while the satisfaction level with the management component was below average. He also noted a significant relationship between tenants' satisfaction levels and the environmental, dwelling and management components of housing. Due to his findings, he stressed on the needs to consider relevant factors of the environment, dwelling and management in housing design and development.

Onifade, Lawanson and Adewale (2018) in Lagos studied housing satisfaction among residents. They adopted the multi-stage sampling technique by stratifying the residential areas into high, medium and low density. Their study noted that two of the variables are positively correlated and significant in low and medium densities. The variables were the number of rooms occupied and type of buildings occupied by residents. They further applied descriptive and correlation analysis in establishing significant levels. They concluded that number of rooms occupied, types of building are the sustainable housing satisfaction determinants in medium and low density areas. Equally, the number of rooms occupied is a major determinant in high density areas. Hence, they established that sustainable housing satisfaction determinants show differences among residential densities in Lagos metropolis, Nigeria,

Adegbile, Onifade and Solanke, (2019) carried out a similar study in Ogun State, Nigeria. He applied mixed research approaches and obtained data using structured questionnaire. They applied descriptive and inferential statistics in carrying out analysis. Their study revealed that satisfaction with the housing attributes is influenced by indoor air quality, individual space, building privacy, condition of building materials and indoor lightening. They therefore noted that for residents to be satisfied adequately with housing units, there is need for the above facilities to be made sufficiently available. They suggested that adequate attention be given to the above factors in the housing design and development process so as to promote housing satisfaction among residents.

From the submission of scholars, it is obvious that the satisfaction of residents within housing units in the study area is dependent on certain variables. The variables can be broadly categorized into social, economic and environmental factors. The availability of facilities, services and utilities that go along in making a place habitable also contribute towards ensuring that the satisfaction of residents in public housing estate is heightened and adequately achieved. As seen in the studies presented by scholars above, studies in relation to the Calabar Metropolis bordering on the satisfaction of residents with the housing facilities that are provided are lacking this suggest that there is a gap in knowledge that needs to be filled. Against this backdrop, this study is of immense importance.

Materials and Methods

Study Area

Calabar metropolis is the capital city of Cross River State. It lies between Longitudes 8 º18` East and 8º26` East of the Greenwich meridian and Latitudes 4º50' North and 5º67' North of the Equator. The entire surface area of the metropolis is 159.65square kilometres. The metropolis is bordered on the North by Odukpani Local Government Area and on the West by Calabar River. It also share boundaries in the East by the Great Kwa River and in the South by the Atlantic Ocean. The metropolis is made up of two Local Government Areas; Calabar South and Calabar Municipality. The 1991 population census results put the number of humans at 328876. Current projections suggest that a total of 687351 are residing in Calabar (Eteng and Ajom, 2021). The major engineers of population growth in the study area include civil service, trading, farming and artisanal activities. Calabar Metropolis is a major tourism destination hotspot that attract visitors from various part of the world. Christians dominate the study area. Being a state capital and a major urban area in Nigeria, there is influx of people and housing demand has been increasing in the area over the years. Equally, governments at various levels have seen to the development of public estates in the Calabar Metropolis. The benefactors of public housing units cut across various spheres of the civil service.
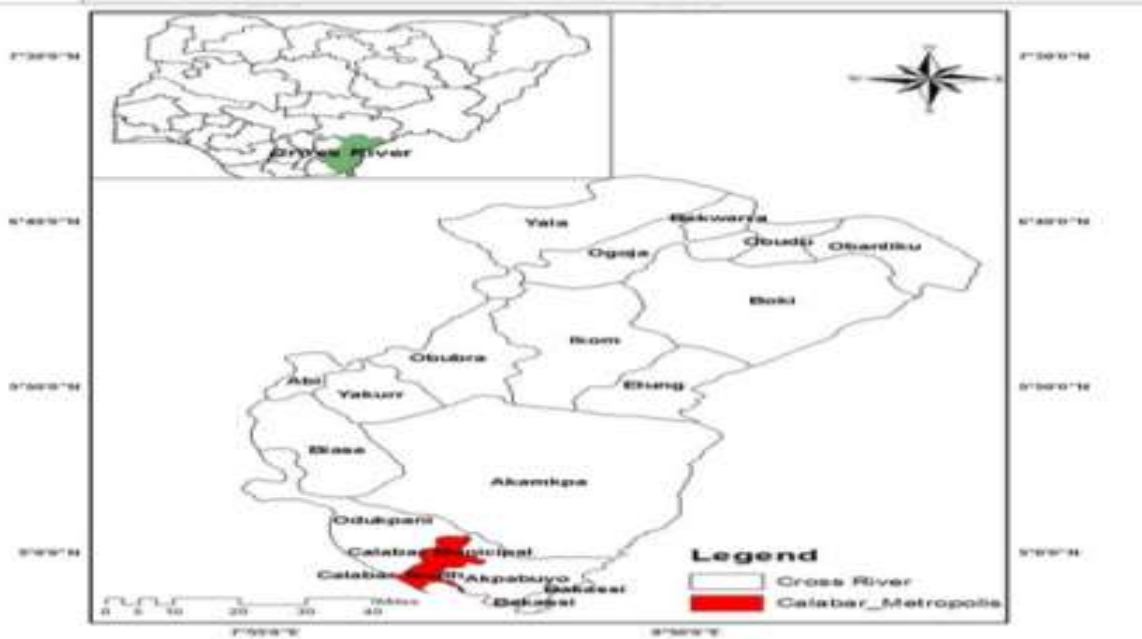
Figure 1: Calabar Metropolis on the Map of Cross River State
Source: Geographic Information System Laboratory, Department of Urban and Regional Planning, University of Cross River State, (2021)

Methods

The study adopted the descriptive design. The study relied on primary data. This involved the use of questionnaire for data collection. Specifically, five (5) public housing estates were purposively sampled. In all, a total of 100 household heads were given copies of questionnaire to complete. The questionnaire were systematically distributed using appropriate skipping range. Frequencies and percentages were used in carrying out analysis. In order to establish the level of housing satisfaction, the Relative Satisfaction Index (RSI) was adopted. RSI is mathematically represented as follows: RSI =

$(5n_5+4n_4+3n_3+2n_2+1n_1)$ /5N. The study adopted a five point likert scale. The grading of the likert scale is as follow; 5 = very satisfied, 4 = satisfied, 3 = fairly satisfied, 2 = dissatisfied and 1 = strongly dissatisfied.

Results and Discussions

Satisfaction with Housing Location

The level of satisfaction of residents with the location of the housing units was ascertained with five (5) variables as seen in Table 1. The table showed that the residents were mostly not very satisfied with the housing location. For instance, the RSI score of 3.3 depicts that the residents of the study area were fairly satisfied with the space allocation with the housing area while 2.6 explain that the residents were dissatisfied with the proximity of the public estates to other services. In all, the table indicate that the residents are not completely satisfied with the overall location of the housing location.

Table 1: Satisfaction with Housing Location

	Variables	Very Satisfied	Satisfied	Fairly Satisfied	Dissatisfied	Very Dissatisfied	RSI
1	Space allocation within housing area	23	31	13	14	19	3.3
2	Quality of services within housing area	12	34	21	14	19	3.1
3	Public facilities/infrastructure within housing area	19	16	17	12	36	2.7
4	Satisfaction with social environment within housing area	26	21	14	11	28	3.1
5	Proximity to services	13	17	21	18	31	2.6

Source: Field Survey, 2022

Satisfaction with Physical Facilities

The satisfaction level of the residents of public estates with physical facilities was summarized in Table 2. However, the table show that the height of ceiling in public estates and the size of rooms tend to be the variables with the largest RSI score. The score depict satisfied and fairly satisfied. Furthermore, the table indicated that the residents were dissatisfied the aesthetic quality among other variables as seen in the table. However, the varying levels of satisfaction in the physical facilities show that there is need for certain factors to be put in place in the housing development process of residential public estates in the study area.

Table 2: Satisfaction with Physical Facilities

	Variables	Very Satisfied	Satisfied	Fairly Satisfied	Dissatisfied	Very Dissatisfied	RSI
1	Size of rooms	32	36	14	13	5	3.8
2	Height of ceiling	34	39	21	6	0	4
3	Sanitation facilities	24	27	27	18	4	3.5
4	Number of rooms	18	17	14	11	40	2.6
5	Electrical fittings	23	19	13	9	36	2.8
6	Aesthetic quality	12	11	13	18	46	2.3
7	Size of compound	9	16	21	15	39	2.4
8	Quality of construction materials	21	23	14	28	14	3.1
9	Parking space	13	24	19	25	19	2.9
10	Widows/doors	26	12	23	17	22	3
11	Floors	35	21	12	11	21	3.4

Source: Field Survey, 2022

Environmental Factors

Environmental factors as it concerns the satisfaction of residents of public housing estates in Calabar depict that the residents were dissatisfied with the waste disposal, water supply system and ventilation. Only the near absence of gully erosion satisfied the residents. In all, the satisfaction levels of residents in public estates towards the environmental factors show differences. This imply that the environment is not completely conducive for residents to stay and leave in.

Table 3: Environmental Factors

	Variables	Very Satisfied	Satisfied	Fairly Satisfied	Dissatisfied	Very Dissatisfied	RSI
1	Waste disposal	7	9	31	23	30	2.4
2	Road surfaces	46	23	12	6	13	3.8
3	Water supply system	12	9	13	29	37	2.3
4	Noise pollution	34	13	12	33	8	3.3
5	Ventilation	20	12	23	18	27	2.8
6	Drainage system	23	12	15	12	38	2.7
7	Erosion	48	27	12	6	7	4
8	Flooding	32	28	13	4	23	3.4

Source: Field Survey, 2022

Conclusion and Recommendations

The study focused on assessing housing satisfaction of residents' of public estates in Calabar Metropolis, Nigeria. It was noted that the residents were not completely satisfied with the housing units. For instance, it was noted in the study that the residents lack access to certain facilities and environmental/physical factors do not completely favour the residents. Although the study indicate that the residential housing satisfaction of the residents vary, it is obvious that the overall satisfaction is within average. In other words, residents in public housing estates in Calabar are fairly satisfied with the housing area. This is inevitable in the midst of poor planning, poor funding and overcrowding in public housing units. Facilities in public housing estates were also observed to be deteriorating and depreciating as significant attempts have not been made by housing institutions to fix and upgrade the housing units. The physical attributes applied in judging the level of satisfaction indicate that residents in public housing estates lack access to improved and safe waste disposal

systems while public water supply systems are failing and have long become unreliable. It was also shown that the aesthetic quality of the housing environment is distorted all of which influence the satisfaction of residents to remain fair. Based on the study findings, it is inferred that facilities and amenities that go along to making housing environments habitable and conducive be provided and deteriorating ones be upgraded. There should also be attempts to promote regular renewal of the housing environments in public estates to avoid deterioration and dilapidation of structures within the housing environment.

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