

Residents' Perception of Quality of Public Housing in Lagos, Nigeria

**Olatunde Daniel Babalola, Eziyi O. Ibem,
Prof. Abiodun O. Olotuah and Omoyeni A. Fulani**

*Department of Architecture, Covenant University,
Ota, Ogun State, Nigeria.*

Abstract

The perception of residents on the quality of the public housing was the subject of this study. This was in the light of the fact that this approach is being increasingly adopted in the provision of housing for to mitigate deficiencies in this area. A survey of fifteen out of seventy-nine estates selected across the three separate income typologies and the three housing providers in Lagos State, Nigeria. Data were collected through the use of structured questionnaires. The results of the study reveal that although the respondents indicated that the spaces provided were adequate, the areas of services such as electricity and water supply need to be addressed. The spacing of the buildings also needs to be addressed in subsequent schemes as the respondents indicate high obstruction to ventilation.

Keywords: Adequacy; Housing Quality; Nigeria; Perception

Introduction

Housing quality, described by Erskine, 1998 cited Osman and Lemmer (2002), as the standard of the residential environment that provides residents with accessible, safe and beautiful accommodation, in a sustainable manner has been a concern the world over. This is because it is said to affect welfare, health and productivity of individuals and households (Coker, Awokola, Olomolaiye, and Booth, 2007, and Krieger and Higgins, 2002). The quantitative inadequacies of housing however differ in magnitude between the developing and the developed countries and between the poor and the rich. It was on this premise that Ibimilua (2011) noted that the poor have inadequate

access to quality housing, while the rich have greater chances of accessing good quality housing.

The quality of a residential area reflects a city's planning, development and resources allocation between socio-economic classes, and residents' quality of life (Coker *et al.*, 2007). Hence, improving quality of housing is an enormous task particularly in developing countries, including Nigeria (Olotuah, 2006d). In Nigeria, the major challenge in urban areas has been inadequacies in both quantity and quality of housing. Since housing has been known to be highly capital intensive, the investment by government and other stakeholders should be properly directed towards achieving good quality housing environment. This is very important in order to achieve value for money for their investments.

It was for this reason that the National Housing Policy in Nigeria was formulated in 1991 to provide sustainable solutions to the qualitative and quantitative housing challenges confronting citizens of this country. It was revised in 2004, 2006, and 2012 (FGN, 2002, 1991; Olofinji, 2015). In spite of these efforts to develop a good and workable policy framework for the housing sector, millions of citizens across Nigeria, including Lagos are living in substandard houses. This suggests that Nigeria as a country is yet to get it right in meeting the housing needs of her citizens and residents. In Lagos in particular, there has been attempts by past governments to provide houses for the populace. One question however is: how do residents of these estates perceive the quality of the houses provided through this public intervention?

Numerous studies have highlighted the factors affecting housing quality (Fiadzo, Houston, and Godwin, 2001; Fiadzo, 2004; Olotuah, 2006d; Amole, 2007; Mallo and Anigbogu, 2009; Amao, 2012). From these studies it is evident that the factors determining housing quality (HQ) differ from one location to another as earlier asserted by Lawrence (1995). In the context of urban areas in Nigeria, rapid population growth, low economic status of most urban households, inadequate public resources and a general increase in the cost of housing are major issues. Consequently, studies (Onokerhoraye, 1976; Mabogunje, 1985; 1976; Diogu, 2002; Olotuah, 2003; Olotuah and Adesiji, 2005) have indicated that the deplorable quality of housing in this country has manifested in structurally unsound and substandard houses in urban and rural areas of the nation. Although the UN-HABITAT (2006) report reveals that Lagos State has one of the most critical housing challenges in Nigeria with a huge quantity of very low quality housing, there is paucity of literature on how residents perceive housing quality especially in the area of adequacy of spaces and services. A study of this nature will inform on the aspects of housing that residents may consider as least adequate, so as to inform future provisions.

Review of Literature

According to Foster (2000), adequate housing quality provides basic requirement to guarantee stable communities as well as social inclusion. Also So and Leung (2004) in a research found that there exists a direct relationship exist between housing quality and 'quality of life (QOL), well-being and pleasantness with appearances of dwelling units'.

Housing quality may be understood as the standard of the residential environment that provides residents with accessible, safe and beautiful accommodation, in a sustainable manner (Erskine, 1998 cited in Osman and Lemmer, 2002). It may include the housing units, services and the surrounding environment (Needham and Verhage 1997). According to Lawrence (1995), quality of housing can be perceived in several dimensions, depending on the perspectives and intentions of researchers or the sponsor(s) and those who formulate policies. Generally speaking, housing quality has been defined as the general standard, characteristics, attributes or degree of excellence of housing (Microsoft Encarta, 2009; Mariam Webster Dictionary, 2011).

From another perspective, housing quality is viewed as theoretical or an abstract. What this suggests is that it may not have real or specific concept/definition; and therefore it is not directly assessable, but has many observable indicators (Goodman, 1978). For instance, a study in USA (HUD, 2011) identified 13 variables that can be used to describe or measure housing quality standards (HQS). These are “*sanitary facilities; food preparation and refuse disposal; space and security; thermal environment; illumination and electricity; structure and materials; interior air quality; lead-based paint; access; site and neighbourhood; sanitary condition; water supply; and smoke detectors*”. On the other hand, Corporation for Supportive Housing (CSH, 2009) in U.S. in their study, conceived housing quality using seven dimensions of “*administration, management, and coordination; physical environment; access to housing and services; supportive services design and delivery; tenant rights, property management and asset management; input, and leadership; data, documentation, and evaluation*”. From the foregoing, it is evident that housing quality is determined by a number of parameters, namely: (i) management and related issues; (ii) physical aspect of the housing and housing environment; (iii) social-cultural and psychological aspects.; (iv) rights, rules and regulations; and (v) location and study contexts.

Further, Son, Won and Moon (2003) were of the view that housing quality was a function of improved housing conditions such as increased average size of residence and area of residence per household and per person, and decreased number of persons per room, and the ratio of households living in a room. It is also known to be a function of increased number of households living in a house with modern toilet facilities and fitted with hot running water. This view agrees with the position of Biondic and Sepic (2002) which stated that quality of dwelling environment should be seen as all-encompassing. As Lawrence (1995) also opined, “*housing quality should be considered in terms of economic, political and ecological dimensions as well as architectural, technical and qualitative dimensions. The relative nature of these dimensions and of housing quality varies according to the societal context in which they occur*”. As a result of this, housing availability, affordability and quality have replaced the generalized concepts and normative criteria for defining housing quality. This view of integrating the three concepts of availability, affordability and quality also agreed with the views of Biondic and Sepic (2002) above. Housing quality therefore results from the overall perception of residents which depends on level of acceptability or non-acceptability. According to Abloh (1980), housing acceptability is considered from construction materials, design and size of spaces, construction

type, and housing services. Other indices include ways of life, income levels, domestic habits, space arrangement, value and priorities, nearness to work place or town centre, adequate facilities within dwelling, privacy, design, function and aesthetics, noise, pollution, unfriendly neighbours and personal insecurity. Housing quality is a serious problem in Nigeria. Non-experts involvement in housing as one of building projects has been one of the reasons given for poor housing (Awobodu, 2006). In this context, housing quality is viewed from the perspective of adequacy of housing provisions, which captures the space, security, services, comfort (ventilation and lighting) and accessibility. These are aspects that often impinge on the well-being of residents.

Unfortunately, the housing situation in majority of Nigerian cities is characterised with squatters, squalors, slums, and numerous inadequacies (Godwin, 1997; Jiboye, 2004). Both qualitative and quantitative housing problems are the main issues in Nigeria. Qualitative aspect is related to the maintenance of existing housing, which is very important because of the need for preservation and upgrade of lower ones to acceptable national standards. Previous research results showed that housing problems remain one of the major problems facing this nation (Onibokun, 1985). Owing to rapid population growth, low economic capacity of most urban households, inadequacy of public resources, and a general increase in the cost of building, acute housing and environmental conditions abound in Nigerian urban areas (Olotuah, 2006).

Housing quality in Nigeria including Lagos was generally poor [Olotuah (2003), Olotuah and Adesiji (2005), Olotuah (2006), and Onokerhoraye (1976)], with a lack of basic infrastructures, high room occupancy ratio of four to five (4-5) residents per habitable room with some cases in which a whole family of up to 10-12 persons lived in a single room (H.F.P., 2010; NHP, 1992). The deficiency in good quality housing is compounded by the fact that Lagos also serves as the business centre for the majority of local companies.

Housing quality is one of the housing conditions; hence, understanding the concept of housing is very important to the subject of its quality. Housing has been defined by Abosede (2006) and Jolaoso (2001) as *“the residential neighbourhood, micro-district or physical structure(s) that mankind uses for shelter and the environment of the structure, including all necessary facilities, equipment and devices needed for the physical health and social well-being of the family and individual”*.

Housing has also been described as physical structures provision for shelter; and such shelter includes all equipment and facilities as well as services required for the health and well-being of the residents. Clark (2009) defined housing as a *“shelter which to a reasonable degree maintains, protects, and supports human health; is safe and sanitary; and has an atmosphere of reasonable dignity”*. According to Abosede (2006) *“housing fulfils man’s social needs such as privacy, social well-being and protection against hostile physical forces and disturbances”*. Bourne (1981) regarded housing as *“a physical facility, unit or structure, which provides shelter to its occupants and as an economic commodity; and a component of fixed capital stock means of producing wealth-thus serving as a governmental tool for regulating economic growth”*.

Housing refers to more than just a dwelling or mere shelter, as it also includes all that is within the dwelling Olayiwola, et al (2006). The house is perceived as secured private space protecting us from adverse weather; a form of artificial environment for household living, growth and development. This position is in agreement with the fundamental human rights stand on shelter and Coker et al (2007) in their findings that good quality housing is essential for good quality of life. Researchers have also shown that housing of good or poor quality has positive or adverse effects on well-being and health (including mental health) of residents (Page, 2002). Similarly, Oluwande (1983) concluded on Nigerian situation that children's progress is retarded by poor quality housing. The research also asserted that most Nigerian cities including Lagos, have poor quality housing and experienced inadequate infrastructural facilities over several decades.

From literature, it was found that there are several housing quality related concepts. These include satisfaction, choice, preference, tenure, affordability, ownership and sustainability. A careful analysis has revealed that there are a lot of similarities among these concepts as they are important in the assessment of housing quality and all the other related objective and subjective assessments of attributes of housing are involved in one form or the other in a survey (Amole, 2007, 2009; HUD, 2011a, 2011b; George, 2006; Jiboye, 2004, 2009; Oguntoke, Muili and Bankole (2009); Olayiwola, Adeleye and Jiboye, 2006; Olotuah, 2004, 2006). However, certain cogent issues are peculiar to the subject and study area which, are to be deduced only by empirical studies such as this.

Research Methods

The methodology adopted for the work is the cross-sectional survey research method, based on randomly selected sample sizes from sampling frame of fifteen out of seventy-nine estates selected across the three separate income typologies and the three housing providers in Lagos State, Nigeria. Data were obtained from randomly selected 379 household heads in same number of dwelling units from the research population in the study area using questionnaire, observation and photographic materials as data collection instruments. A data matrix of 83 variables by 379 cases which produced 31,457 responses was adopted. The questionnaire was written in English, the Nigerian Lingua Franca. The questionnaires were administered to household heads to obtain relevant data on variables affecting housing quality. These are made up of a set of structured closed-ended questions from which choices were selected from the given options. Required data were collected at specific periods on the sampled housing to facilitate meeting the respondents at their residence. Ten field assistants were employed, trained and each encouraged to administer not more than 10 questionnaires per day. Because of the wide distribution or dispersion of the study population and other technicalities, administration and collection of questionnaires and other data were carried out between April and July 2014 (within 16 weeks) as earmarked during planning stage for field work. Distribution and collection of some questionnaires in some estates, observation and data collection with photographic

materials in all the sampled estates were also carried out by the researchers, which also coordinated all fieldwork.

Findings

The results of the study revealed that most of the respondents were male, married and aged between 18 and 40 years (Table I). About half of the respondents were from were educated to the tertiary level. Considerable proportions were either self-employed (35.6%) or public sector employees (38%). It is also interesting to note that about half of the respondents earned 38,000 Nigerian Naira or less. Majority have stayed in the estates for between 4 and 6 years. And are renters

Table I: Demographic and Socio-Economic Characteristics of the Residents

<i>Variables</i>	<i>N=379</i>	<i>%</i>
Sex		
Male	254	67.0
Female	125	33.0
Marital Status		
Married	258	68.0
Not Married	121	32.0
Age Grouping (Years)		
18-30yrs	114	30.1
31-40yrs	145	38.2
41-50yrs	73	19.3
51-60yrs	31	8.2
Above 60yrs	16	4.2
Highest Level of Educational Attainment		
No Formal Education	7	2
Primary Education	13	3
Secondary Education	167	44
Tertiary Education	192	51.0
Occupation		
Unemployed	44	11.6
Self Employed	135	35.6
Retired	9	2.4
Private Sector Employee	47	12.4
Public Sector Employee	144	38.0
Average Monthly Income in Naira		
Below N18,000	117	30.9
N18,000-N38,000	101	26.6
N38,001-N44,000	27	7.1
N44,001-N71,000	26	6.9
N71,001-N145,000	63	16.6

N145,001 & Above	45	11.9
Length of Stay in the Residence (in years)		
Below 4	52	14
4-6	239	63.0
7-9	48	13
10-12	20	5
13+	20	5
Household Size (Persons)		
1-4	288	76.0
5-8	85	22.4
9 +	6	1.6
Tenure Type		
Free Occupation	17	4.6
Renter	232	62.0
Official Quarters	14	3.7
Family House	9	2.4
Owner Occupier	102	27.3

As shown in Table II, the services that most of the respondents agreed were available in the estates were private generating plants as opposed to public electricity supply; and water vendor trucks, as opposed to public water taps. Moreso, refuse collected was reported to be carried out once in 16 days or more.

Table II: Availability of Housing Services in the Estates

Housing Services	N	%
<i>Main Source of Power Supply</i>		
Candle/Kerosene/Paraffin	23	6.1
Private Generating Plant	210	55.6
Public Supply	145	38.3
<i>Main Source of Domestic Water</i>		
River, Lake or Pond	12	3.2
Unprotected well	15	4.0
Vendor/Truck	200	53.1
Borehole/ Protected well	127	33.8
Public outdoor tap/ Pipe into dwelling	22	5.9
Frequency of Refuse Collection from the House or Deposit Point		
None	9	2.4
Once every 16 or more days	215	56.7
Once every 11-15days	26	6.9
Once every 6-10days	47	12.4
Once every 5days	82	21.6

In terms of the environment of the estate, the most of the respondents agreed that spaces for gardening were available (Table III), but many (79.7%) were not sure of the quality of landscape design of the estate. Many of the respondents (78.1%) rated the quality of the perimeter fencing high. Similarly, many (83.8%) agreed that identification of houses in the estate was very easy. Most of the respondents also reported easy accessibility to workplaces, markets and shopping centres as shown in Table IV. The study assessed residents' perception of the location of bedrooms in their dwelling units.

Table III: Residents' Perception of the Environment of the Estates

	N	%
Availability of Space for Gardening and Hedging in the Estates		
Unavailable	15	4.0
Not Sure	47	12.7
Available	310	83.3
Quality of Landscape Design in the Estates		
Low	12	3.2
Not Sure	302	79.7
High	65	17.1
Quality of perimeter fencing in the estates		
Low	15	4.0
Not Sure	68	17.9
High	296	78.1
General Aesthetic Appearance of the Estates		
Ugly	25	6.6
Not Sure	299	79.1
Beautiful	54	14.3
Ease of Identification of Houses in the Estates		
Very Difficult	23	6.1
Not Sure	38	10.1
Very Easy	23	83.8

Table III: Accessibility to Neighbourhood Facilities

	N	%
Ease of accessibility to Workplaces		
Difficult	45	12
Not Sure	45	12
Easy	289	76
Ease of Access to Markets/Shopping Centres		
Difficult	33	9
Not Sure	35	9
Easy	309	82.0

The results also reveal that over 66% indicated that the location of their bedrooms in the houses was good; almost 33% said the location was fair, while almost 1% said their bedrooms were badly located. This result indicates that the majority (over 66%) of the residents like the location of their bedrooms in their houses. In terms of the adequacy of the number of bedroom(s) in each of the dwelling units in the housing estates in the study area, the result reveal that over 68% indicated that the number of bedrooms in their houses was adequate in meeting their domestic space needs; over 28% were undecided on the adequacy of the number of bedrooms in their homes, while less than 4% said the number of bedrooms in their homes was inadequate in meeting their needs. This result indicates that in the majority (over 68%) of the houses in the study area, rated the number of bedrooms as adequate in meeting the households' need for sleeping.

Regarding the adequacy of the size of bedroom(s) in the residences, the result also reveals that over 73% of the residents were not sure of the extent to which the size of their bedroom(s) was adequate in meeting their need; almost 23% said the size of their bedroom(s) was adequate, while 4% viewed the size of their bedroom(s) as not being adequate in meeting their need. It can be inferred from this result that the majority (over 73%) of the household head were not able to assess the extent to which the size of their bedroom(s) was adequate in meeting their needs.

The results also show that over 77% of those sampled indicated that the size of living/dining space in their residences was adequate, 13.3% were not sure, while 9.3% evaluated the size of living/dining as inadequate for their families. This result clearly shows that the majority of the household heads viewed the size of living/dining space as adequate in meeting their need.

It was also of interest in this study to understand residents' perception of the adequacy level of the number and sizes of bathrooms in their homes. The result reveals that over 83% of the respondents noted that the number of bathrooms in their homes was adequate, 9% of them were not sure of this, while about 8% said the number was not adequate in meeting their need for bathrooms. Similarly over 14% of the household heads sampled rated the size of their bathroom to adequate, over 74% were not sure of this, while 11% rated the size of bathrooms in their residences to be inadequate.

This result shows that a high majority (89%) of the household heads in the housing estates evaluated the number and size of their bathrooms as not inadequate in meeting their households' needs.

The adequacy of size of kitchen in the dwelling units was also investigated in the current study. It was observed that over 75% percent of those who participated in the survey were not sure of the adequacy of size of kitchen in their homes, 18% indicated that the size was adequate, while almost 7% claimed that the size of their kitchen was inadequate in meeting their need for the preparation of food for their family members. This simply means that the size of kitchen in the majority (over 93%) of dwelling units was not inadequate in meeting households need.

The study examined adequacy of circulation space in the dwelling units. Table V shows that almost 88% of the residents indicated that circulation space in the dwelling unit was adequate; over 10% of them were not sure of this, while over 2% claimed that circulation space in their dwelling units was inadequate.

This result indicates that majority (almost 88%) of the houses have adequate internal circulation spaces (Table V). To assess ambient condition, obstruction to ventilation/free air circulation and obstruction to natural lighting were used measured. Results reveal that houses in which the ‘obstruction to ventilation’ is classified as ‘Not Sure’ by the resident respondents ranks highest and constitutes over 79% of the housing units; followed by those classified as ‘Low’, constituting almost 13%; while those classified as ‘High’, considered as worst constituted almost 8 %. This result indicates that minority of the houses (almost 8%) were those whose ‘obstruction to ventilation’ is classified as ‘High’ or worst condition.

Table VI provides data on this and revealed that houses in which the ‘obstruction to lighting’ is classified as ‘Not Sure’ by the resident respondents ranks highest and constitutes over 79% of the sampled housing; followed by those classified as ‘Low’, constituting over 14%; while those classified as ‘High’, considered as worst constituted only less than 7%. This result indicates that minority of the houses (almost 7%) were those whose ‘Obstruction to lighting’ is classified as ‘High’ or worst condition.

Table V: Adequacy of circulation space in the dwelling units

	Percent	Cumulative Percent
Inadequate	2.1	2.1
Not Sure	10.1	12.2
Adequate	87.8	100.0
Total	100.0	

Table VI: Obstruction to natural lighting

Responses	Percent	Cumulative Percent
High	6.3	6.3
Not Sure	79.4	85.7
Low	14.3	100.0
Total	100.0	

Housing satisfaction was one of the constructs used in assessing housing quality in this study. In doing this, four key variables related to internal layout of rooms in housing, the noise level around housing, building materials used for housing, satisfaction with frequency of garbage collection in the estate, satisfaction with security of lives and properties in the estate were used.

The results on satisfaction with internal layout of rooms in the residences reveal that a high majority (over 95%) of the respondents are not dissatisfied with the internal layout of rooms in their houses Table VII. Satisfaction with noise levels was also investigated table. The results reveal that a high majority (over 89%) of the respondents are not dissatisfied with the level of noise in their residences, meaning there is no problem of noise pollution in the housing estates in the study area (Table VIII).

Table VII: Satisfaction with internal layout of rooms

	Percent	Cumulative Percent
Very Dissatisfied	.5	.5
Dissatisfied	3.7	4.2
Somewhat satisfied	45.7	49.9
Satisfied	34.3	84.2
Very Satisfied	15.8	100.0
Total	100.0	

Table VIII: Satisfaction with the level of noise in residences

	Percent	Cumulative Percent
Very Dissatisfied	7.1	7.1
Dissatisfied	3.4	10.5
Somewhat satisfied	32.5	43.0
Satisfied	45.4	88.4
Very Satisfied	11.6	100.0
Total	100.0	

Table 4.3.19 presents the result on satisfaction with the frequency of garbage collection in the estates. Examination of this result showed that a high majority (over 97%) of the respondents are not dissatisfied with the frequency of garbage collection in the estates. The study also examined residents' satisfaction with security of lives and property in the housing estates. The result is presented in Table X. This result indicates that a high majority (over 97%) of the respondents are not dissatisfied with the level of security of lives and property in the estates.

Table IX: Satisfaction with frequency of garbage collection in the estates

	Percent	Cumulative Percent
Very Dissatisfied	.5	.5
Dissatisfied	1.9	2.4
Somewhat satisfied	26.2	28.6
Satisfied	49.2	77.8
Very Satisfied	22.2	100.0
Total	100.0	

Table X: Satisfaction with security of lives and property in the estate

	Percent	Cumulative Percent
Very Dissatisfied	1.1	1.1
Dissatisfied	1.6	2.7
Somewhat satisfied	30.3	33.0
Satisfied	44.6	77.6
Very Satisfied	22.4	100.0
Total	100.0	

Discussion

This study set out to investigate the perception of quality of housing provided through public interventions in Lagos, Nigeria, in terms of its adequacy. The adequacies of the space provided, security, services, comfort (ventilation and lighting) and accessibility were investigated. This is in the light of the assertion of Foster (2000) that adequate housing quality is one that provides basic requirement. The results of the study suggest that the residents rate the spaces provided as adequate, although the issue of ventilation appeared to be a concern. This is because the respondents rated the obstruction of ventilation as high. This indicates a flaw in the spacing of the buildings, which should be addressed in subsequent schemes. In addition, although the respondents indicated that refuse is collected every 16 days or more, it appears that this is not a concern as these respondents also rated their satisfaction with the frequency of collection of refuse high, with very few persons being dissatisfied. This may suggest that the respondents may have other means of disposing their refuse. In spite of the availability of spaces that can be used for edges and gardens, it appears that there is little design of the landscape of these spaces. Such spaces may constitute areas for unplanned activities as was observed in some of the estates, where they have been converted for shopping activities.

The results of the study also suggest that the location of the estates may have been carefully determined as many of the residents were satisfied with the accessibility of their residences to their work places and the markets/shopping areas. It however appears that a major area of deficiency is in terms of electricity and water services. This had been earlier observed by Olotuah (2006). Later schemes may take this into consideration, by providing amenities that these estates may need before they are occupied. In fact it may be necessary to include this in the agreement.

Conclusions

The present study sheds some light on the perceptions of residents on quality of public housing especially in terms of adequacy of provisions. One implication of the findings is the need for subsequent designs to address the issue of spaces between buildings. This is to ensure that there is adequate ventilation for the residents, ensuring their well-being. Another implication of the findings of this study is the need to build the

provision of basic amenities so as to ensure that the estates provided do not lack these amenities. There is also need to include landscape planning the designs and execution. In spite of the contributions of this study, one limitation is that only public housing in Lagos, Nigeria, has been studied. In addition, few concepts of housing quality, (adequacy and satisfaction) have been explored. Further studies may investigate other locations to establish the generalization of the findings of this study. Further studies may also consider other concepts of housing quality.

References

- [1] Abosede, F.B. (2006). Housing in Lagos Mega City: Improving Livability, Inclusion and Governance. Paper presented at the *International Conference on 'Building Nigeria's Capacity to Implement Economic, Social and Cultural Rights: Lessons Learned, Challenges and the Way Forward'*. Abuja. 27-28 September.
- [2] Abloh, F.A. (1980). *A Concise Basic Sociology for Community Designers*. Department of Housing and Planning Research, University of Science and Technology, Kumasi, Ghana.
- [3] Amao, F.L. (2012). Housing Quality in Informal Settlements and Urban Upgrading in Nigeria (A Case Study of Apete in Ibadan) in *Developing Country Studies* 2 (10), 68-80.
- [4] Amole, D. (2009a). Residential Satisfaction and Levels of Environment in Students' Residences. *Environment and Behavior*, 41(6), 866-879. SAGE Publications 10.1177/0013916508322175.
- [5] Amole, D. (2009b). Residential Satisfaction in Students' Housing. *Journal of Environmental Psychology*, 29 (1), March 2009, Pp. 76-85
- [6] Amole D. (2007). A Study of the Quality of Student Residential Facilities in Nigeria. *Planning for Higher Education*. 35(4): 40-50.
- [7] Awobodu, O. (2006, August 17). Engaging experts will check spate of building collapse. *The Punch*, 4.
- [8] Biondic, L. & Sepic, L. (2002). Analysis of the Relationship between the High-quality Dwelling and Standards in Croatia in Ural, O., Abrantes, V. & Tadeu, A. (Eds). In *XXX International Association for Housing Science, IAHS World Congress on Housing-Housing Construction Vols 1-3*, Pp. 1259-1266.
- [9] Bourne, L.S. (1981). *The Geography of Housing*. London: Edward Arnold Publishers Limited
- [10] Clark, E. J. (2009). *The Housing Quality Questionnaire: A new self-report measure for public health assessment in ProQuest*, University Of Illinois at Chicago, Health Sciences Center.
- [11] Coker, A.O., Awokola, O.S., Olomolaiye, P.O. & Booth, C.A. (2007). Challenges of Urban
- [12] Housing Quality and its Associations with Neighbourhood Environments: Insights and Experiences of Ibadan City, Nigeria. In *Journal of Institute of*

- Environmental Health (JEHR)*, 7(1), by Chartered Institute of Environmental Health.
- [13] CSH (Corporation for Supportive Housing). (2009). *The Seven Dimensions of Quality for Supportive Housing*. Retrieved on August 30, 2011 from <http://documents.csh.org/documents/Quality/SevenDimensionsQualityIndicatorsWEBFINAL.pdf>
- [14] Diogu, J.O. (2002). Housing the Poor in Nigeria: The integrated Project Approach. *Association of Architectural Educators in Nigeria (AARCHES) Journal: 2*
- [15] FGN (Federal Government of Nigeria). (1991). *National Housing Policy*. Nigeria: Federal Ministry of Works and Housing
- [16] FGN (Federal Government of Nigeria). (2002). *National Housing Policy*. Nigeria: Federal Ministry of Works and Housing
- [17] Fiadzo, E. (2004). Estimating the Determinants of Housing Quality: The Case of Ghana. *Harvard University Joint Center for Housing Studies*, June 2004 W04-6.
- [18] Fiadzo, E.D.; Houston, J.E. & Godwin, D.D. (2001). Estimating Housing Quality for Poverty and Development Policy Analysis: CWIQ in Ghana. *Social Indicators Research*, 53 (2), 137-162. Published by: Springer.
- [19] Foster, A. (2000). *Putting your house in order: evaluating tenant satisfaction with improvements to social housing*. Retrieved April 8, 2010 from <http://www.hmtreasury.gov.uk/media/092FE/239.pdf>.
- [20] George, C.K. (2006). *Basic Principles and Methods of Urban and Regional Planning*. Lagos, Nigeria: Libro-Gem Limited
- [21] Godwin, J. (1997). The House in Nigeria, an exploration. In Amole, S.A. (Ed.), *The Conference on the House in Nigeria*. Department of Architecture, Obafemi Awolowo University, Ile-Ife, Nigeria.
- [22] Goodman Jr., J.L. (1978). Causes and Indicators of Housing Quality. *Social Indicators Research*, 5 (2), 195-210, Published: Springer Stable URL.
- [23] HUD (The U.S. Department of Housing and Urban Development). (2011a). *Housing Quality Standards*. Retrieved August 30, 2011 from http://portal.hud.gov/hudportal/HUD?src=/program_offices/public_indian_housing/programs/hcv/hqs
- [24] HUD (The U.S. Department of Housing and Urban Development). (2011b). *Housing Quality Standards (HQS)-Frequently Asked Questions*. Retrieved August 30, 2011 from http://portal.hud.gov/hudportal/documents/huddoc?id=DOC_9143.pdf
- [25] Ibimilua, A.F. (2011). The Nigerian National Housing Policy in Perspective: A Critical Analysis. *Journal of Social Development in Africa*, 26 (2) 2011. Retrieved October 22, 2012 from <http://www.ajol.info/index.php/jsda/article/view/75633>
- [26] Jiboye, A.D. (2009). Evaluating Tenants' Satisfaction with Public Housing in Lagos, Nigeria. *Urbanistika ir architektūra Town Planning and Architecture* 33 (4), 239-247.

- [27] Jiboye, A. (2004). The Socio-Cultural Responsiveness of Household Size on Housing Quality In Osogbo, Nigeria. *Kamla-Raj Anthropologist*, 6(3), 169-174.
- [28] Jolaoso, A.B. (2001). *Housing and Indigenous Building Technology-An Introduction*. Abeokuta Nigeria: DESI-GGA Publications.
- [29] Krieger, J. & Higgins, D. L. (2002). Housing and Health: Time Again for Public Health Action. *Am J Public Health*, 92(5), 758-768. Retrieved October 26, 2012 from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1447157/>
- [30] Lawrence, R.J. (1995). Housing Quality: An Agenda for Research. *In Urban Studies*, 32 (10), 1655-1664.
- [31] Mabogunje, A.L. (1985). Towards an urban policy in Nigeria. In Onibokun, P. (ed.) *Housing in Nigeria: A book of Readings* (pp.19-35). Ibadan, Nigeria: NISER.
- [32] Mallo, D.M & Anigbogu, N.A (2009). *Housing Quality Between Residential Neighbourhoods in Jos, Nigeria*. www.gla.ac.uk/media/media_129706_en.pdf
- [33] Merriam-Webster Dictionary (2011).. Meaning of *Quality* Retrieved May 20, 2011 from <http://www.merriam-webster.com/dictionary/quality>
- [34] Microsoft Encarta (2009). Meaning of Quality. Published by Microsoft Corporation.
- [35] Needham, B. & Verhage, R. (1997). *The Effects of Land Policy: Quantity as well as Quality is Important*. Retrieved August 30, 2011 from <http://usj.sagepub.com/content/35/1/25.abstract>
- [36] Oguntoke, O., Muili, T.H. and Bankole, M.O. (2009). Morbidity pattern of pulmonary tuberculosis and housing quality in Lagos metropolis, Nigeria. *International Journal of Risk Assessment and Management*, 13 (2), 115-126.
- [37] Olayiwola, L.; Adeleye, O. & Jiboye, A. (2006). *Effect of Socio-Cultural factors on Housing Quality in Osogbo, Nigeria*. In "Construction in developing Economies: New Issues and Challenges" CIB W107 Construction in Developing Countries International Symposium 18-20 January.
- [38] Olofinji, L. (May 12, 2015). An Overview of the National Housing Policy. Real Estate May12, Retrieved August12, 2015 from: <http://nigeriarealestatehub.com/an-overview-of-the-national-housing-policy.html/>
- [39] Olotuah, A.O. (2003). "The Physical and Socio-Economic Dimension to Housing Quality: An Empirical Investigation of a City Suburb" *African Journal of Sciences*, 4 (1)799-81
- [40] Olotuah, A.O. (2004). 'The Impact of Socio-Economic Variables on Housing Quality in Akure, Nigeria' *Journal of Science & Technology Research*, 3 (2) 82-87.
- [41] Olotuah, A. O.& Adesiji, O. S. (2005). '*Housing Poverty, Slum Formation, and Deviant Behaviour*', Papers and Presentations, Housing Studies Association Conference, University of Lincoln, Lincoln, UK, 8-9 September <http://www.lincoln.ac.uk/home/conferences/details/hsa/PAPER-OLOTUAH.doc>

- [42] Olotuah, A.O. (2006). 'An Appraisal of Conditions of Ageing Buildings in the Core Area of Akure, Nigeria' Proceedings of CII-HK (Construction Industry Institute Hong Kong) Conference 2006 on Ageing Building-Threats and Opportunities, Tsim Sha Tsui, Kowloon, Hong Kong, 21 November 2006, pp. 19-26
- [43] Olotuah, A. O. (2006d). 'Housing Quality in Suburban Areas (An Empirical Study of Oba-Ile, Nigeria)', *DimensiTeknik Arsitektur Dec.*, 34 (2) 133-137.
- [44] Onibokun, P. (1985). Socio-cultural constraints on Urban Renewal Policies in Emerging Nations. The Ibadan Case. Pp 393-405. In: *Housing in Nigeria*. P.Onibokun (Ed.). A Book of Reading (NIER), Ibadan.
- [45] Onokerhoraye, A. (1976). The Pattern of Housing, *Benin, Nigeria, In Ekistics*, 41(2424).
- [46] Osman, A.O.S., Lemmer, C. (2002). *Architecture and housing: changing perspectives in a new South Africa-The case of Pretoria University*. In XXX IAHS World Congress on Housing. Volume 1. Housing construction, an interdisciplinary task/ 9-13 Sep, Wide Dreams-Projectos Multimedia, Pp. 115-122.
- [47] So, A. T. P. & Leung, A. Y T. (2004). *Survey of attitudes towards buildings in three Chinese cities: Hong Kong, Shanghai and Taipei. Facilities*, 22 (3/4), p. 100-108.
- [48] Son,J., Won,Y. & Moon,C. (2003). Changing Conditions and Quality of Housing. *Social Indicators Research*, 62/63, 211-237
- [49] UN-HABITAT. (2006). *Enabling Shelter Strategies-Review of Experience from Two Decades of Implementation*, UNCHS, Nairobi.