

RESIDENTS' PERCEPTION OF DETERMINANTS OF HOUSING QUALITY OF ABAJI CITY, FEDERAL CAPITAL TERRITORY, NIGERIA

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Abstract

This paper evaluates the resident's perception of determinants of housing quality of Abaji City. Data were collected through structured questionnaire and administered based on stratified random sampling (zones of traditional and non-traditional residences). Data collected for the evaluation include, house structural characteristics, in-house and environmental facilities. Analysis of data was done by factor analysis with statistical package for social science (SPSS 10.0) and Excel package. The mean housing quality of each houses sampled were arrived at after scoring the variables. The results depict that; compound houses and bungalow dominate Abaji City, and generally the city lack houses with good quality. There is also no significant difference in type of houses found in both zones. However, there is positive relationship between the type of building and rental value, and between road accessibility and rental value of a house. Based on the findings, it is recommended that, the appropriate officers of local authority to prevent further development of ram-shackle buildings in the area must enforce building regulations. Moreover, constant improvement on the infrastructural facilities to cater for population explosion in the nearest future of the area is necessary for sustainable development.

KEYWORD: *Housing structural characteristics, Housing amenities, Environmental facilities, Housing Quality,*

Introduction

A UN-Habitat (2006) estimate had indicated that more than one billion of the world's city residents live in low quality housing, mostly in the sprawling slums and squatter settlements in developing countries. Other similar estimates also indicate that almost a billion people already live in slum conditions characterized by insecure tenure, inadequate housing, and a lack of access to water or sanitation around the world; and that slums are growing dramatically within the world's poorest cities, particularly, in Sub-Saharan Africa and Asia (UNDP, 2005; UNHabitat, 2007). Deteriorating physical characteristics and limited access to social services characterize much of the housing stock in Ghana (Twum-Baah, Kumekpor and de Graft-Johnson, 1995). The situation is not so different in Nigeria. *Compound housing* dominates the housing types (about 72% in 1991/92 – Ghana Statistical Service, 1995), followed by huts, single family and multi-family (flats/apartments) housing. The traditional compound house consists of a large rectangular structure, generally 7 or more rooms ranging around three sides of a courtyard. Most huts are found in the rural areas, while flats and other housing types are common in urban areas. (Fiadzo, 2004). "The concept of housing is more than merely a physical shell". Housing encompasses all the auxiliary services and community facilities, which are necessary to human well-being. Therefore, it should be considered an "extension of human frame. It should respond to the needs of its inhabitants both in function as a garment does". (Majzub, 1978). Morenikeji (2006) posited that, between 60% and 70% of urban environment made up of houses and thereof, the quality of urban environment depends largely on the quality of the houses. Apart from the houses, household and neighbourhood facilities and sanitation are also germane to the high quality of the urban environment. Therefore, refuse disposal system, availability of water and energy, road and drainage system if they can be measured can give a clue to the quality of the environment. It is on these premises that, this paper evaluate housing quality in relation to environmental quality of Abaji city, Abuja, Nigeria.

Aim and Objectives of the Study

The aim is to assess the housing quality with a view to give clue to environmental quality of Abaji city. The objectives are as follows:

- To identify and map out the type of residential houses in the study area.
- To assess the quality of the houses identified in the area.
- To assess the availability or lack of infrastructure facilities in the study area.
- To measure the correlation between housing quality and corresponding house values (Rental value).

Research Hypotheses

Hypothesis: 1

H₀: There is no significant relationship between building type and rental value.

H₁: There is significant relationship between building type and rental value.

Hypothesis: 2

H₀: There is no significant relationship between accessibility (road network) and rental value.

H₁: There is significant relationship between accessibility (road network) and rental value.

Hypothesis: 3

H₀: There is no significant difference in infrastructural facilities available in the two selected zones of the city.

H₁: There is significant difference in infrastructural facilities available in the two selected zones of the city.

Hypothesis: 4

H₀: There is no significant difference in the quality of materials used for houses, condition of the building items in Abaji city, (Wall, floor, window and ceiling).

H₁: There is significant difference in the quality of materials used for houses, condition of the building items in Abaji city, (wall, floor, window and ceiling).

Background to the Study Area

The Federal Capital Territory (F.C.T) is located in the geographic centre of the nation. It lies between latitudes 7° 20' and 8° 25' North of the Equator, and between longitudes 6° 45'E and 7° 39'E. It occupies a space of about 250 square kilometers. It is bounded to the North by Kaduna state, to the East and Southeast by Nassarawa state, to the South-west by Kogi state and in the West by Niger state.

The Federal Capital Territory is divided into six (6) area councils namely; Abuja municipal area council, Bwari area council, Gwagwalada area council, Kwali area council, Kuje area council and Abaji area council. Abaji area council, according to the Ministry of Federal Capital Territory (M.F.C.T) yearly bulletin 1993, pg.16, the area covers an area of 17,000 square kilometers with an estimated population of 700,000 people. The town is structured from the Chief "ONA" who is the traditional ruler of Abaji and at the same time the chairman Abuja council of traditional rulers. Egbuira, Hausa, Nupe, Ganagana, Gwari and Bassa speaking groups people the town. Others like the Yoruba and Igbo are now living in this area for their businesses and because of house demolition in the main Abuja city during the Obasanjo administration. Abaji has grown up in population and many squatters are now resident in it.

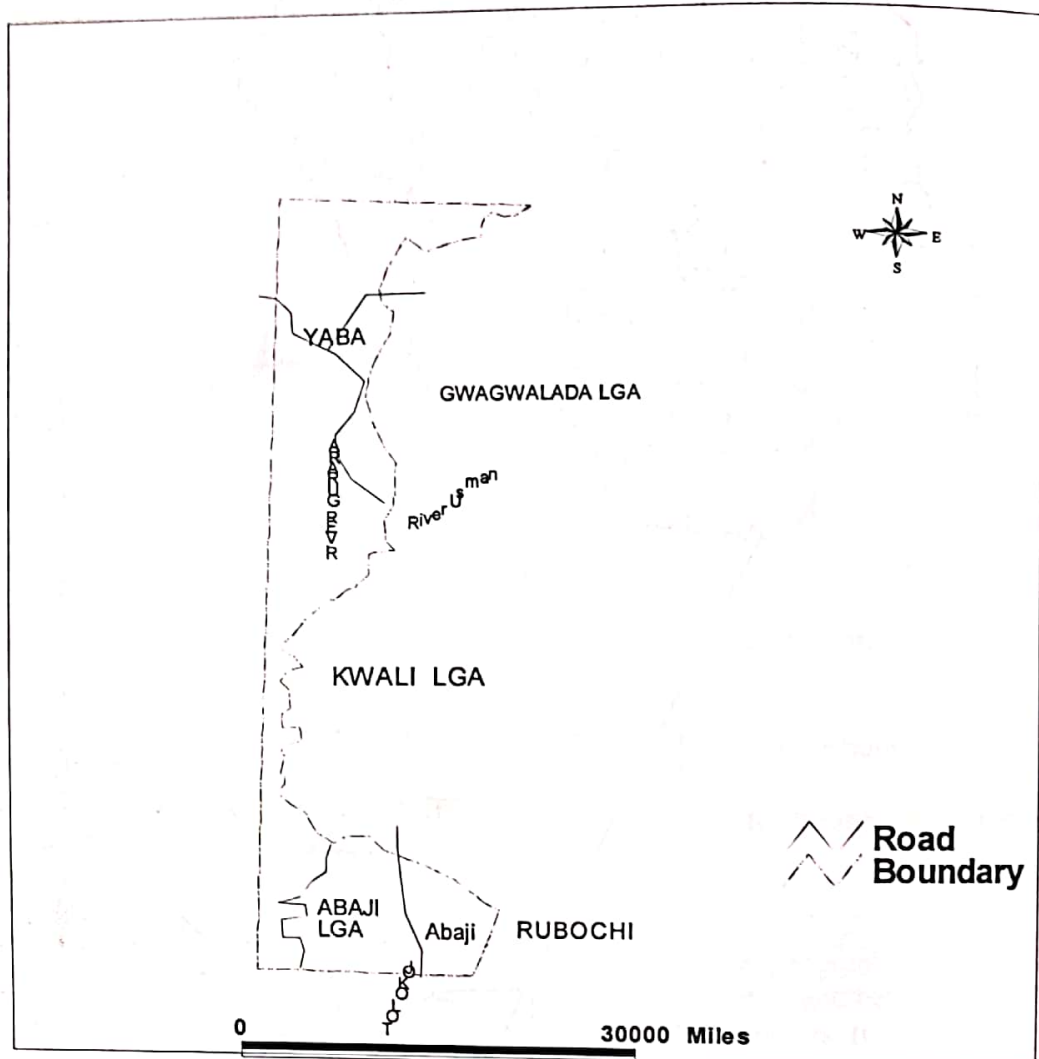


Figure 2: Abaji Area Council Map, Federal Capital Territory, Nigeria.

Literature Review

According to Jinadu (2007), studies and real life experiences have shown that majority of the low-income earners in the developing world live in substandard housing and poor quality neighborhoods. There are two dimensions to the problem poor housing quality. First, most of the units in the core areas of our traditional cities are consistently growing old with little or no maintenance. Second, the problems of low-income and poverty of the majority have resulted in the construction of substandard housing and the creation of low quality neighborhoods, which are deficient in basic services. *Eldredge (1967) asserts that housing represents a bundle of goods and services which facilitate and enhance good living; and a key to neighbourhood quality and preservation. Likewise, Agbola (1998) concludes that housing is a combination of characteristics which provide a unique home within any neighbourhood; it is an array of economic, social and psychological phenomena. In otherwords, housing could be seen as a multidimensional package of goods and services*

extending beyond shelter itself. The need to appreciate the relevance of a habitable (qualitative) housing therefore, requires an understanding of the concept of 'quality' which according to Onion, cited in Afon (2000), "is a mental or moral attribute of a thing which can be used when describing the nature, condition or property of that particular thing". Mccary, cited in Jiboye (2004), noted that reaching a definition of quality depends not only on the user and his or her desires, but also on the product being considered. In essence, quality is a product of subjective judgment which arises from the overall perception which the individual holds towards what is seen as the significant elements at a particular point in time (Anantharajan, 1983; Olayiwola, et al, 2006). In assessing the quality or suitability of housing, previous qualitative studies have identified some criteria as relevant indicators for quality evaluation in residential development. Among such is Abloh (1980), who noted that housing acceptability should take into account, type of construction, materials used, and amount of space, services and facilities, condition of facilities within and outside dwelling, function and aesthetics among many others. Ebong (1983) identified aesthetics, ornamentation, sanitation, drainage, age of building, access to basic housing facilities, burglary, spatial adequacy, noise level within neighbourhood, sewage and waste disposal, air pollution and ease of movement among others, as relevant quality determinants in housing. However, Hanmer et al. (2000), conclude that qualitative housing involves the provision of infrastructural services which could bring about sustainable growth and development through improved environmental conditions and improved livelihood. In determining the quality of residential development, the Scottish housing Standard stipulates five basic criteria which provide that housing must be in compliance with tolerable standard, free from serious disrepair, energy efficient, provided with modern facilities and services, and that it must be healthy, safe and secure (Neilson (2004). Also, the Housing Corporation of Britain (HC, 2007), outlined three basic indicators in determining quality of any housing development. These are; location, design and external environment of the house. These indicators consist of variables such as; access to basic housing and community facilities, the quality of infrastructural amenities within housing neighbourhoods, spatial adequacy and quality of design, fixtures and fittings, building layout and landscaping, noise and pollution control as well as security, among many others. There are however indications from these various studies that a single variable may not be sufficient to assess the qualitative nature of residential development; therefore, housing acceptability and qualitative assessment should also take into account type of constructions, materials used, amount of space, services, spatial arrangement and facilities within dwellings, function and aesthetics, among others (Olu-Sule and Gur, cited in Jiboye, 2004). Previous studies have indicated that a more appropriate method of evaluating the quality of the built environment is through the affective responses based on the user's assessment (Weldemann and Anderson, 1985; Ilesanmi, 2005. Jiboye, 2010). It is on these premises that, this study evaluate housing quality in relation to environmental quality of Abaji city, FCT, Nigeria.

Materials and Methods

Abaji City naturally divided into two zones and it is taking as such. From the author's previous work, it regarded as zone of traditional residence and zone of non-traditional residence. The sampling technique used for this research is stratified random sampling. Samples drawn from two major zones, i.e. zone of traditional residence and zone of non-traditional residence. The housing population of the city was not determined. As a result, the population sampled could be said to be non-probability sampling. Due to homogenous nature of traditional residence, the systematization had been each house in every five houses, while various type of residential houses sampled from the non-traditional residence, 200 questionnaires was distributed in both zones (head of households were given to assess their house).

Table 1: Distribution of Questionnaires and Percentage of Responses

Zones	Number Of Questionnaire Administered	Number Of Questionnaire Returned	Percentage Of Questionnaire Returned
Traditional residence	100	49	49.0
Non-traditional residence	100	56	56.0
Total	200	105	52.5%

Source:- Author's Field Survey, (2008)

Table 1.52.5% of the questionnaire distributed were completed and returned. The low response may be attributed to People being sensitive to Abuja experience of demolition of houses. Data collected were analyzed by SPSS software (regression analysis). The results presented in tables, map, and frequency distributions.

Results and Discussion Housing Survey of Abaji City

Table 2: Housing Types in Abaji City

	Frequency	Percent	Valid Percent	Cumulative Percent
bungalow	34	31.2	32.4	32.4
semi-detached	13	11.9	12.4	44.8
storey building	4	3.7	3.8	48.6
traditional compound	38	34.9	36.2	84.8
rooming (face to face)	16	14.7	15.2	100.0
Total	105	96.3	100.0	
Total	105.00	100.0		

Source: - Author's Field Survey, (2008)

Fig. 3: Map of the Study area, showing different types of buildings

Housing Quality Measured

Since housing quality is a composite good, comprising many product characteristics, a set of 31 items was evaluated for scaling into a housing quality index for the Abaji City. This is assessed by the house structural characteristics in-house and environmental facilities. Each of these variables assigned values. The higher the quality, the higher the score awarded e.g. Bungalow was assigned 5, Semi-detached was assigned 4, Storey building was assigned 3, Traditional compound was assigned 2, Rooming (face to face) was assigned 1. Detailed property information was collected for assessing the building qualities. 31 factors were considered and ranked to determine the quality. These included condition of doors, windows, floors, roof, and access to water among others. Rental values obtained directly from the respective tenants and property owners. The mean housing quality of each house sampled arrived at after scaling the variables.

Based on the mean housing quality arrived at, the highest mean quality is 3.42 and the least is 1.66. (Sule, 2009). Based on these figures, we can then categorize the quality of the houses as follows:

- (i) Less than 1.99 = Extremely poor
- (ii) 2.00 - 2.40 = Very poor
- (iii) 2.41 - 2.80 = Poor
- (iv) 2.81 - 3.20 = Fair
- (v) 3.21 and above = Good

From this cut-off, the housing type qualities for both zones were given in Table 3 below:

Table 3: Housing Quality based on the compositing above.

Zones	Housing Quality Measured					Total
	Good	Fair	Poor	Very poor	Extremely poor	
Traditional residence	2	4	22	15	6	49
Non-traditional residence	23	24	9	-	-	56
Total	25	28	31	15	6	105
Percentage %	23.8%	26.7%	29.5%	14.3%	5.7%	100%

Source; Author's Field survey, (2008)

Table 4: Correlation between Building Types and Rental Value

		ANUARENT	BLDTYPE
ANUARENT	Pearson Correlation	1.000	-.364**
	P-VALUE	.	.007
	N	54	54
BLDTYPE	Pearson Correlation	-.364**	1.000
	P-VALUE	.007	.
	N	54	105

** . Correlation is significant at the 0.01 level (2-tailed).

Source: - Author's Field Survey, (2008)

Interpretation: (Table 4) since the calculated correlation coefficient is less than the P-value, we reject H_0 and accept H_1 . It means there is significant relationship between building types and annual rental value. Correlation is significant at 0.01 levels. From this result, 36.4% variations in annual rental (ANUARENT) are predicted by building types (BLDTYPE). The correlation, which is negative, connotes that the building types determines the annual rental paid by the tenants.

Table 5: Correlation between Accessibility and Rental Value

		ANUARENT	ACCESSIB
ANUARENT	Pearson Correlation	1.000	.284*
	P-VALUE	.	.042
	N	54	52
ACCESSIB	Pearson Correlation	.284*	1.000
	P-VALUE	.042	.
	N	52	102

*. Correlation is significant at the 0.05 level (2-tailed).

Source: - Author's Field Survey, (2008)

Interpretation: Since the calculated correlation coefficient is less than the P-value, we reject H_0 and accept H_1 . Table 8 above shows that 28.4% variations in annual rent (ANUARENT) are predicted by the accessibility (ACCESSIB) to houses in Abaji city. The correlation is significant at the 0.05 level.

Table 6: Compare Mean of Infrastructural Facilities

	N	Mean	Std. Deviation	Std. Error Mean
POWERSUP	105	2.9524	.3768	3.677E-02

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
POWERSUP	80.299	104	.000	2.9524	2.8795	3.0253

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
WATSOURC	105	3.6857	1.3750	.1342

One-Sample Test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
WATSOURC	27.467	104	.000	3.6857	3.4196	3.9518

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
WATSPEND	92	1.8587	1.1151	.1163

One-Sample Test

	Test Value = 0					
	t	df	P-VALUE	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
WATSPEND	15.987	91	.000	1.8587	1.6278	2.0896

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
WASTDISP	105	1.1238	.3309	3.230E-02

One-Sample Test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
WASTDISP	34.796	104	.000	1.1238	1.0598	1.1879

Source: - Author's Field Survey, (2008)

Interpretation: Based on the result of analysis above, we do not reject Ho since T-cal (1.1238) is less than upper critical T-value (1.1879) and greater than the lower critical T-value (1.0598). Hence, we conclude that there is no significant difference in power supply, water source and expenses incurred on water within the Traditional and Non-traditional area. However, analysis shows that the method of waste disposal in the two zones of the city does not differ significantly.

Table 7: ANOVA for the Quality of Materials Used

		Sum of Squares	df	Mean Square	F	p-value
WALLMAT	Between Groups	3.694	3	1.231	.720	.545
	Within Groups	83.777	49	1.710		
	Total	87.472	52			
ROOFMAT	Between Groups	.839	3	.280	.383	.765
	Within Groups	36.494	50	.730		
	Total	37.333	53			
FLOORMAT	Between Groups	16.762	3	5.587	5.524	.002
	Within Groups	50.571	50	1.011		
	Total	67.333	53			
WINDMAT	Between Groups	3.910	3	1.303	.458	.713
	Within Groups	139.298	49	2.843		
	Total	143.208	52			
DOORMAT	Between Groups	9.548	3	3.183	1.899	.142
	Within Groups	83.786	50	1.676		
	Total	93.333	53			
CEILMAT	Between Groups	3.207	3	1.069	.712	.549
	Within Groups	73.548	49	1.501		
	Total	76.755	52			

Source: - Author's Field Survey, (2008)

Interpretation: (Table 7) since F-cal is greater than the P-value, we do not reject Ho for wall material, floor material, door material and ceiling material. In contrary, we reject Ho for roof and window material since the F-cal is less than P-value.

Table 8: ANOVA for Condition of Building Items

		Sum of Squares	df	Mean Square	F	Sig.
WALLCOND	Between Groups	3.751	3	1.250	1.310	.282
	Within Groups	46.777	49	.955		
	Total	50.528	52			
ROOFCOND	Between Groups	11.779	3	3.926	1.447	.241
	Within Groups	132.976	49	2.714		
	Total	144.755	52			
FLORCOND	Between Groups	3.419	3	1.140	1.119	.351
	Within Groups	47.875	47	1.019		
	Total	51.294	50			
WINDCOND	Between Groups	4.419	3	1.473	2.907	.044
	Within Groups	24.826	49	.507		
	Total	29.245	52			
DOORCOND	Between Groups	1.899	3	.633	1.411	.251
	Within Groups	21.988	49	.449		
	Total	23.887	52			
CEILCOND	Between Groups	.857	3	.286	.371	.774
	Within Groups	38.476	50	.770		
	Total	39.333	53			

Source: - Author's Field Survey, (2008)

Interpretation: (Table 8) since F-cal is greater than the P-value, we do not reject H_0 for wall, window door and floor condition. Since F-cal is less than P-value, we reject H_0 for ceiling condition and therefore accept H_1 .

Conclusion

The following conclusions were drawn based on the findings:

That Abaji city originated from traditional settings. Traditional compound dominates the housing types in Abaji city. See figure 3.

The housing quality depends on housing components and infrastructure facilities available in the neighbourhood. In the case study, Abaji city lacks good houses as indicated in Table 3.

In addition, the building types determine the rental value of the house. In this case, the more decent a house is, the higher the rental value or the less decent a house is, the lower the rental value. (See Table 4)

Road accessibility is also an important factor that determines the rental value. If a house is duly accessible in terms of road network, then the houses command higher rental value. As shown in table 5 that 28.4% variations in annual rent (ANUARENT) are predicted by the accessibility (ACCESSIB) to houses in Abaji city. The correlation is significant at the 0.05 level.

Recommendations

- (i) Government should provide a better road network in which virtually all the houses will gain accessibility. That is building regulations must be enforced by the appropriate officers of local authority.

In addition, there should be constant improvement on the infrastructural facilities to cater for population explosion in the nearest future.

- (ii) Strictly, regulations should be formulated to ensure that materials used at various stages and for various components of the building are of good quality.
- (iii) No doubt, there is an acute water problem in Abaji City. The present administration of Abaji Area Council should intensify her efforts in provision of more boreholes and embark on more water projects.
- (iv) The present administration of Abaji Area Council should intensify her efforts in environmental sanitation in the city.

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