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# EVALUATING THE PATTERN OF RESIDENTIAL QUALITY IN NIGERIA: THE CASE OF OSOGBO TOWNSHIP

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**Abstract**. One of the major challenges of housing in Nigeria is how to address existing variations in the pattern of residential quality across different urban areas. Through a survey of 406 housing units selected from three residential areas in Osogbo Township in Nigeria, this study examines and compares the pattern of housing quality. Using descriptive statistics and Analysis of Variance (ANOVA), where; F = 24.786 and P = 0.00 - significant at 0.05, the study shows that residential quality varies in pattern from one area to another. By comparing the mean differences among the zones, Zones C and A had 6.84, while C and B had 5.298. These values indicate that residential quality of "Zone C" is better relative to those of Zones "B' and "A" in Osogbo.

The study concludes that appropriate policy and strategies should be put in place to improve housing quality within different residential areas in Nigeria.

Key words: housing, infrastructures, Nigeria, residential areas, quality pattern

#### 1. INTRODUCTION

In recent times, there has been a growing concern on the deteriorating state of housing in most urban areas of the developing nations. Consequently, the need for a decent and adequate shelter has long been an issue requiring urgent global attention. Since shelter constitutes one of man's basic needs, it does have a profound impact on the health, wellbeing, social attitudes and economic productivity of the individual [7 and 14]. However, it has been pointed out that residential quality and the quality of life are two variables of the same equation. Thus, the quality of housing, being basically an important health element, affects the well-being of the people, their productivity, manner of living and the decencies of their lives [4].

Significantly, good quality housing provides the foundation for stable communities and social inclusion [6]. Previous research has established that a positive correlation exists between the quality of life and the comfort, convenience and visual appeal of housing [27]. Good quality housing is therefore essential to planning. It does not only ensure the

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safety and wellbeing of people, but promotes beauty, convenience and aesthetics in the overall built-up environment [28].

Existing realities have however indicated an apparent variation in housing characteristics across different regions. The consequences of adaptation and restructuring have resulted into differences in housing quality in different communities. This problem of differential housing quality is compounded by the very rapid urban growth [13]. However, studies have shown that the provision of appropriate housing, particularly for the urban poor constitutes a major challenge to development in most African countries and developing nations' at large [22; 17; and 14]. Despite increasing emphasis on the need to improve housing, particularly within the urban areas of the less developed countries (LDCs), a high proportion of the urban population are deprived of access to good quality housing [24]. Going by a UN-Habitat estimate, 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 [28]. The reality is that this urban housing scenario has adverse implications on the general wellbeing of the people and portends severe danger to the socioeconomic and physical development of the nations at large.

In Nigeria, like in other developing nations, the provision of housing has been a major concern for some time. Access to decent and good quality housing has posed serious challenge to sustainable growth and development. While there has been an increasing demand for additional housing stock in the urban areas, the condition and overall quality of the existing stock falls short of the expected standard [25 and 15]. Consequently, the urban house forms accommodated extended families living with many inconveniences while spatial congestion and infrastructure overloads cause problem in living comfort [3] and [13].

Considering the gravity of the housing problems and its effects on the wellbeing of the people and the nation at large, there is the need for housing improvements in our cities, and this is predicated on the appreciation of the essence of the house within the context of human habitation. There is no doubt, that housing remains a basic human need. Its quality, cost, and availability are crucial to individual's quality of life. Also, the location, planning, layout and design make an important contribution to community spirit and identity, and are significant components of the social dimension of sustainable development [20] and [14].

In Nigeria and other developing countries, the use of inputs from human values in housing design and development has been negligible. Yet, such inputs are very important in providing useful clues for community planners and urban administrators in allocating resources for the improvement of the overall well-being of the society. The input of studies such as this is required to serve as feedback to guide in the formulation of appropriate housing improvement policies. By positing the case of Osogbo Township, the study intends to examine the quality of housing as well as identify any variation in the pattern of housing quality in Nigeria.

#### Criteria for housing quality evaluation

Due to the complex nature of housing and residential environments, approaches to their study have been multi-dimensional [12]. Therefore, housing, according to [4], operates as a combination of many factors, forming a pattern that is extremely diversified. Housing is however broadly conceived as a unit of the environment which has a profound influence on the health, efficiency, social behavior, satisfaction and general welfare of the community. It reflects the cultural, social and economic values of a society as it is the best physical and historical evidence of civilization in a country [16]. It has been argued that "housing has a large potential to contribute towards providing people with opportunity to live full lives, and therefore contributes towards all aspects of development in the individual, community and societal contexts" [29] and [23]. Furthermore, it has also been established that there is a significant association between housing conditions and both physical and mental health of an individual [7]. Housing can therefore be conceptualized as a multi-dimensional package of goods and services which enhance good living as well as neighborhood quality and preservation.

With regards to quality in housing, studies have revealed that certain criteria or attributes are associated with qualitative evaluation in housing. Such attributes, as pointed out in [8] include among others, adequate shelter and privacy from unwanted people. In a study on residential quality in Calabar, Nigeria, four major criteria were identified - consisting of beauty, convenience, health and accessibility in assessing the quality of housing. The variables considered under these criteria include; aesthetics, ornamentation, sanitation, drainage, age of building, access to basic housing facilities, burglary, spatial adequacy, noise level within neighborhood, sewage and waste disposal, air pollution and ease of movement among others. The study emphasized that residential quality implies something about the environmental surroundings, as well as the social milieu, both of which promote the health, convenience, aesthetic, emotional and socio-economic well-being of the occupants of the house [4].

In another study on housing quality in Osogbo, Nigeria, it was found that the provision of qualitative housing involves consideration of all ancillary services, environmental amenities and social infrastructures like; water, electricity, road, drainage, sewage and waste treatment facilities, personal safety and security among many others [2]. Furthermore, [9] 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. Similarly, [1] concludes that the provisions of adequate infrastructure are basic requirements for the socio-economic wellbeing of an area.

In a report on qualitative evaluation prepared by the Housing Corporation of Britain in 2007, three basic indicators were outlined for determining the quality of any existing housing development. These are location, design and external environment of the house. Variables classified under these indicators include access to basic housing and community facilities; the quality of infrastructural amenities within housing neighborhoods; spatial adequacy and quality of design, fixtures and fittings; building layout and landscaping; noise and pollution control as well as security, among many others [10]. This report however, substantiates [18] and [15], indicating that a single variable may not be sufficient to assess the qualitative nature of residential development; indicators that need be considered include housing design, external and internal conditions of dwelling, ergonomics, residential mobility and preference. Also, housing acceptability and qualitative assessment should take into account type of constructions, materials used, amount of space, services, spatial arrangement and facilities within dwellings, function and aesthetics, among others.

Some studies indicate that the evaluation of housing performance and quality has been based on criteria which are economic, physical and social in nature. Economic criterion

seeks to provide the relationship between rent and income; physical criterion focuses on the integrity of the dwelling in terms of design, appearance and suitability of fixtures; while social criterion relates to the incidences of diseases and the degree of overcrowding. However, 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 [30] and [12].

In this study, qualitative evaluation will be based on user's assessment of the physical criterion of housing in terms of the adequacy and availability of basic infrastructures like water, electricity and road, access to solid and liquid waste treatment; suitability of the building design; integrity of the building elements like doors, windows, roofs, floors and walls, as well as that of fixtures within the dwellings. The relevance of this study to urban development process is to guide in the formulation of policies that will respond to the utilization of human values in the development and improvement of housing for the people in Nigeria and other developing nations.

#### **Data collection**

The survey made use of questionnaire designed to elicit information on the respondents' housing characteristics within the study area. Osogbo is an urbanized medium-sized town in Nigeria, situated on latitude  $7^07^1$  North of the equator and longitude  $4^05^1$  East of the Greenwich Meridian. Spatially, the city exhibits the features of a typical traditional Yoruba town with three zones or districts of residential development. The core area consists of the Oba's palace, the traditional market place, referred to as "Oja Oba" and surrounded by many residential units. Next to the core area is the intermediate zone, while the outermost part is the newly developed residential area or outskirt [21]; [5]; [2] and [16]. For the survey, these residential areas were classified into three zones, namely; A, B and C, respectively.

Housing samples were taken from a total of 4,060 housing units identified within the study area of Osogbo. Of this figure, there are 960, 900, and 2,250 housing units in zones A, B and C, respectively. Ten percent (10%) of the total housing units in each zone were selected through stratified random sampling method (see Berry and Baker, cited in [16]). Consequently, 411 housing units, consisting of 96, 90 and 225 units were drawn for sampling from the core area, intermediate area, and the outskirts area, respectively. Out of the 411 questionnaires administered to household-heads who were the respondents, only 406 (i.e 99% response rate) were subsequently retrieved for data analysis. The data were analyzed by frequency distribution and one-way analysis of variance (ANOVA).

#### 2. RESULTS AND DISCUSSION OF FINDINGS

In this section, an assessment of the housing quality in three residential zones of Osogbo was carried out based on variables considered as relevant indicators of quality in housing evaluation. These include; adequacies of basic infrastructures like water supply, electricity, waste disposal, drainage and road. Others include; suitability of building design, physical integrity and conditions of building elements and fixtures. The ratings were done using a five-point rating scale such as; very poor = 1; poor = 2; fair = 3; good = 4; and very good = 5, respectively. See, [26] and [11]. The result is presented in "Table 1".

### 2.1 Assessment of infrastructural facilities

Table 1a, illustrates the distribution of water supply among the residential zones in Osogbo. This indicates that 80.9% of households in Zone C (the periphery), compared to 72.2% in Zone B, and 69.8% in Zone A had access to adequate water supply in Osogbo. This result suggests that zone C and B compared with Zone A enjoyed better attention and quality of services in terms of water provision from the government.

Quality Variables	Z	one A	Zone B		Zone C	
	Freq	%	Freq	%	Freq	%
(a) WATER SUPPLY						
Pipe borne	67	69.8	65	72.2	178	80.9
Well	28	29.2	20	22.2	40	18.2
Vendors	1	1.0	1	0.5	1	0.5
Others	-	-	1	0.5	1	0.5
Total	96	100.0	270	100.0	220	110.0
(b)ELECTRICITY						
Not available	-	-	2	2.2	-	-
Disconnected	1	1.0	2	2.2	3	1.4
Available	95	99.0	86	95.6	217	98.6
Total	96	100.0	90	100.0	220	100.0
(c)WASTE						
Dung pit	58	60.4	63	70.0	49	22.3
Burning	9	9.4	5	5.5	18	8.2
Refuse bin	29	30.2	16	17.8	147	66.8
Local Govt. Coll.	-	-	6	6.7	6	2.7
Total	96	100	90	100	220	100
(d) DRAINAGES						
Very poor	8	8.3	13	14.4	12	5.5
Poor	16	16.7	14	15.6	30	13.6
Fair	67	69.8	57	63.3	128	58.2
Good	4	4.2	6	6.7	31	14.1
Very good	1	1.0	-	-	19	8.7
Total	96	100.0	90	100.0	220	100.0
(e)ROADS						
Very poor	-	-	1	1.1	1	0.5
Poor	47	49.0	27	30.0	66	30.0
Fair	43	44.8	48	53.3	105	47.7
Good	5	5.2	8	8.9	30	13.6
Very good	1	1.0	6	6.7	18	8.2
Total	96	100.0	90	100.0	220	100.0

Table 1 Assessment of Infrastructural facilities

Source: Author's Survey, 2009.

Also from "Table 1", considering the distribution of electricity supply, there is however indication that zone A ranked highest (99%); followed by zone C, (98.6%), while

zone B had the lowest ranking (95.6%) in the order of accessibility to adequate supply of electricity. As indicated in "Table 1c" the distribution of waste disposal in the zones shows that most of the households within zones A and B, representing 60.4% and 70% respectively, disposed their waste on dung pits, whereas a good number of the households (66.8%), in zone C disposed their waste into refuse bins. The result also shows that a small proportion of the households within zones B and C enjoyed local government refuse collection services. This finding suggests that the quality of sanitation and means of refuse disposal in Zone C was better compared to those of Zones A and B. By corroborating [4], it is obvious from this finding that the urban areas in most developing nations such as Nigeria, suffer neglect from their government in the area of sanitation. This could be responsible for the persistent deplorable, unhealthy and unsightly environment in our cities.

The quality of drainages in Osogbo is considered to be generally fair. Based on analysis on Table 1d, the result indicates that the quality of drainages was better in zone C compared with those of other residential zones. This is because 14.1% and 8.7% of the respondents in Zone C compared with the respondents in Zone A (4.2% and 1%) and Zone B (6.7%) rated the drainage system as good or very good. Also there were more respondents in Zone A and Zone B than in Zone C who claimed that the quality of their drainages were poor or very poor. A brief tour of the town revealed that most of the roads in Osogbo were in bad state. However, the result of roads' quality in the zones reveals the quality of roads in Zone C was better compared with those in the other zones (see Table 1e). The results indicate that some residential districts in most urban areas – particularly in Osogbo had access to basic housing amenities more than the others, while also the quality of some of these facilities in certain parts of the urban areas are generally poor. This finding supports those of [2], [25] and [16], indicating the deplorable housing situations in most urban centers in Nigeria. The finding also underscores the need for the improvement of the overall housing environment through effective urban management strategies and provision of basic infrastructures.

#### 2.2 Assessment of Building Design, Elements and Fixtures

The result on the assessment of building design in "Table 2" indicates that the design of buildings in Zone C is better and more acceptable to the respondents than those in Zones A and B. This result is expected as it is typical in most residential areas in Nigeria that the periphery consists of well-planned and recent housing development. On the other hand, the core areas of most cities consist of the traditional King's palaces surrounded by old, traditional and historic buildings that are usually in a state of disrepair.

Rating	Zone A		Zone B		Zone C	
-	Freq	%	Freq	%	Freq	%
Very bad	-	-	4	4.4	-	-
Bad	-	-	-	-	2	0.9
Fair	78	8.3	68	75.6	140	63.6
Good	18	18.8	15	16.7	30	13.6
Very good	-	-	3	3.3	70	31.8
Total	96	100.0	90	100.0	220	100.0

Table 2 Assessment of Building Designs

Weight Value Rating		Z	one A	-	Zone B	Z	Cone C
		Freq	%	Freq	%	Freq	%
1	Very poor	-	-	-	-	1	0.5
2	Poor	1	1.0	-	-	3	1.5
3	Fair	64	72.2	65	72.2	87	39.6
4	Good	24	26.7	24	26.7	110	50.1
5	Very good	1	1.1	1	1.1	19	8.9
	Total	96	100.0	90	100.0	220	100.0
3b. I	Owelling Fixtures	Z	one A	1	Zone B	Z	Lone C
Wei	ght Rating	Freq	%	Freq	%	Freq	%
1	Very poor	1	1.0	2	2.2	3	1.4
2	Poor	3	3.1	3	3.3	5	2.4
3	Fair	8	84.4	58	64.4	141	64.1
4	Good	5	5.2	14	15.6	36	16.3
5	Very good	6	6.3	13	14.4	35	16.0
	Total	96	100.0	90	100.0	220	100.0

Table 3a Assessment of Building Elements

Source: Author's Survey, 2009.

In contrast with the previous result on building design, Table 3 shows that the quality of building elements in Zone C (50.1% and 8.7%) is higher in terms of physical appearance and integrity than those identified in Zones A (30.2% and 2.1%); and B (26.7% and 1.1%). This finding is expected as most buildings in Zones A and B are likely of older origin in terms of construction and types of materials used, while buildings in Zone C (the newly developed area) are of newer origin. With regards to the quality of dwelling fixtures, the quality of the fixtures in Zone C was higher than those in Zones B and A (see Table 3). There is however an indication from the results discussed above that the pattern of housing quality varies among the three residential areas of Osogbo. This finding is further explained using the Analysis of Variance test discussed below.

#### 3. THE PATTERN OF HOUSING QUALITY

Table 4 explains the variation in the pattern of housing quality among the three residential areas in Osogbo. From the ANOVA test result, the sums of square between and within groups for the zones are 3860.82 and 31386.41 respectively. Also the mean square between and within groups are 1930.41 and 77.88 respectively. These values

Table 4 Analysis of variance (ANOVA) Test for Housing quality in Osogbo

Source of variation	Sum of squares	Mean square	Df	F	Р
Between Groups	3860.82	1930.41	2	24.786	0.000*
Within Groups	31386.41	77.88	403		
Total	35247.22	2008.29	405		

Source: Computer Output (\*) Significant at 0.05

yielded an "F". ratio of 24.786, which is significant at 0.05 probability level. These values thus implied that there is a significant difference in the pattern of housing quality among the three residential zones in Osogbo.

Zones	Number	Mean	SD	Mean Difference	Р
Zone A	90	54.65	7.92	-1.54	.495
Zone C	220	59.95	9.82	-6.84 *	* 000.
Zone A	96	53.11	6.99	1.54	.495
Zone C	220	59.95	9.82	-5.298 *	* 000.
Zone A	96	53.11	6.99	6.84	* 000.
Zone B	90	54.65	7.92	5.298 *	.000 *
	Zone A Zone C Zone A Zone C Zone A	Zone A90Zone C220Zone A96Zone C220Zone A96	Zone A9054.65Zone C22059.95Zone A9653.11Zone C22059.95Zone A9653.11	Zone A9054.657.92Zone C22059.959.82Zone A9653.116.99Zone C22059.959.82Zone A9653.116.99	Zone A9054.657.92-1.54Zone C22059.959.82-6.84 *Zone A9653.116.991.54Zone C22059.959.82-5.298 *Zone A9653.116.996.84

Table 5 Multiple comparisons of mean values for housing quality in Osogbo.

Source: Computer Output P(\*) Significant at 0.05

By comparing the overall housing quality among the zones in order to determine the zone with the highest or superior housing quality, a multiple comparison (post-hoc) test of mean values was carried out using the Scheffe formula. The result in "Table 5" shows that Zone C has a greater mean value than the other zones. The mean difference of 6.84 and 5.298, significant at 0.05 probability levels were obtained between Zone C and Zones A and B respectively. This indicates a significant difference in the mean values of the different zones, with Zone C having a superior or higher level of quality, followed by Zone B, while Zone A had the lowest level of residential quality. This finding suggests that the pattern of housing quality in Osogbo varies from one residential area to another. Significantly, the findings of this study have some policy implications for housing development in Nigeria.

#### 4. CONCLUSION

This study has examined housing quality in Osogbo, Nigeria. By comparing the results obtained from the three residential zones in the study area, the findings for the zones revealed that some of the infrastructural facilities are more adequate and of better quality in the outskirts and the newly developed residential area of Osogbo (Zone C) when compared with those facilities in the core area (Zone A) and intermediate area (Zone B) of the town. Furthermore, the finding of this study area. It indicates that housing quality is higher in the outskirt of the city than in other residential areas of Osogbo.

The finding of this study therefore demonstrates that housing is more than mere shelter, but a combination of several factors, forming a pattern that is extremely diversified. By supporting [4], [23] and [14], the study confirms that housing quality implies something about the environmental surroundings, and the social milieu, both of which promote the health, convenience, aesthetic, emotional and socio-economic wellbeing of the occupants.

The relevance of this study to housing research and development is predicated on the appreciation of the essence of housing to human wellbeing and national development. In addition, it provides a justification on the need to ensure that every citizen or locality has equal opportunity to a decent and qualitative housing. Apart from providing a basis for

the involvement of government and stakeholders in according equal attention to housing improvement and development, it also creates a justification on the need for a redirection of the nation's resources towards improving and providing necessary urban infrastructures. However, one critical challenge of this study is how to ensure that people – particularly those residing within the urban areas maximize the opportunities for qualitative housing and livable urban environment. This challenge therefore prompts the need to enlist the participation of the residents, planners and policy makers in the formulation of residential policies. The basis for this is that any policy or program which incorporates residents' views and participation into housing and neighborhood maintenance and development will no doubt yield a much desired goal of ensuring housing improvement as well as the overall quality of the urban environment.

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# PROCENA KVALITETA RASPOREDA STANOVANJA U NIGERIJI: SLUČAJ GRADSKOG PODRUČJA OSOGBO

## Adesoji David Jiboye

Jedan od glavnih izazova stanovanja u Nigeriji je kako pristupiti postojećim varijacijama u rasporedu kvaliteta stanovanja u različitim gradskim područjima. Kroz ispitvanje 406 stambenih jedinica odabranih iz tri stambena naselja u Osogbu, Nigerija, ova studija istražuje i poredi raspored kvaliteta stanovanja. Korišćenjem opisne statistike i Analize Varijacija (ANOVA) gde je F = 24.786 i P = 0.00 - bitno pri 0.05, studija pokazuje da se kvalitet stanovanja razlikuje po rasporedu od naselja do naselja. Poređenjem značajnih razlika između zona, dobija se za zone C i A 6.84, dok su C i B imale 5.298. Ove vrednosti pokazuju da kvalitet stanovanja u Zoni C je relativno bolji od zona B i A u Osogbu.

Zaključak studije je da odgovarajuća politika i strategija moraju biti primenje da bi se poboljšao kvalitet stanovanja u različitim stambenim područjima u Nigeriji.

Ključne reči: stanovanje, infrasruktura, Nigerija, odlike kvaliteta