

Full Length Research Paper

A comparative analysis of residential quality of public and private estates in an urban centre of Lagos, Nigeria: A case study of Iba Estate in Ojo and Unity Estate in Alimosho

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In recent years, most of the urban centers in Nigeria are fast experiencing housing problems such as unaffordable housing and environmental challenges, all of which determine the nature of housing quality. This research centers on Iba Low Cost Housing Estate, Ojo and the Unity Low Cost Housing Estate Alimosho to carry out a comparative analysis of the residential quality. The research reveals the dilapidated state of the public estate infrastructures due to poor management, thus recommended constant upgrading of infrastructures in the estate and an establishment of local housing trust funds for the development of affordable housing to reduce the pressure on available ones.

Key words: Housing, residential quality, low cost housing scheme, public and private estates.

INTRODUCTION

Housing is defined as the total residential neighbourhood/ environment or micro district including the physical structure, all necessary services, facilities and apparatus for the total health and social well-being of the individual and family (Salau, 1992). It is seen as the physical environment in which the family and society's basic units must develop. Housing structures are enclosures in which people are housed for lodging, living accommodation or even work places. It is considered as one of the most basic of human needs. As a component

of the environment, it has a reflective influence on the health, efficacy, social behavior, satisfaction and general welfare of the community (Onibokun, 1998).

To most people, housing means shelter but to others it means more as it serves as one of the best display of a person's standard of living and his or her place in society (Nubi, 2008). It is of great importance to attain a living standard and is important to both rural and urban areas. The demand for housing knows no limits as population growth and urbanization increase very rapidly, thus

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causing supply deficit. In developing countries, poor housing delivery is accredited to inadequate mechanisms and systems for land apportionment, funding, mortgage institutions and infrastructure (Nubi, 2008). Despite the significance of housing, adequate supply remains an illusion to all cadres of Nigerian society, which has been a recurrent feature in most developing countries. The proportion of the Nigerian population living in urban centers has however increased drastically over the years. While only 7% lived in urban centers in the 1930s, and 10% in the 1950s, by 1970, 1980 and 1990, 20, 27 and 35% lived in the cities respectively (Okupe, 2002). According to Okupe (2002) over 40% now currently live in urban centers of varying sizes. This has created severe housing difficulties, resulting in overcrowding in inadequate dwellings and results to the spring up of shanties, and in a situation in which 60% of Nigerians can be said to be "houseless" (FGN, 2004). The aim of the research is to appraise the residential quality in Lagos metropolis using Iba housing estate, Ojo, and Unity Estate in Alimosho as the study areas, to achieve the aim, below are the objectives:

- (1) To examine the demographic and socio-economic attributes of residents in the study area.
- (2) To examine the residential quality delivery in the study area.
- (3) To analyze the level of variation in residential quality of the two estates,
- (4) To propose policy implication of the findings of the study.

Study area

Lagos is one of the Federal Republic of Nigeria (2007) 36 states, notable for her population and commercial activities, and is located in the southwest. It lies approximately between longitude 2°42'E and 3°42'E and latitude 6°22'N and 6°52'N. The Atlantic coastline of about 180km forms the boundary at the south, to the west it is bounded by Benin Republic and Ogun State in the northern and eastern part by Ogun state. The state possesses one of the largest urban agglomerations, having an explosive growth rate of 5.7% annually; growing 2,000 inhabitants averagely daily, which decipher into population growth of about 275,000 persons annually; and a population density of 2,594 persons per sq. km. The state's population at present is estimated around 21 million dwellers (Fashola, 2012, cited in Daily Independent, 2012). However, the location for the study areas are Iba Housing is situated in Ojo and Unity Housing Estate in Alimosho local government areas of Lagos (Figure 1 and 2). The study area is Ojo LGA, located at 6°28'N 3°11'E to the south Ojo is Iyagbe and Ikum-Ibese. To the West are Agbara and Badagry. To the east are Satellite and Festac towns, and to the north are

Igando and Ejigbo. Due to the closeness of the area to the ocean, the area enjoys coastal weather conditions.

LITERATURE REVIEW

Ratcliffe (1978) refers to housing as one of the mechanisms of planning since it gives shelter, security, privacy, investment and personal identity. With the exclusion of food, housing ranks highest amongst man's elementary needs in the Nigerian Fourth National Development Plan (1981-1985), and it goes beyond simple shelter to include community services which includes energy, water supply, access roads, sewerage, refuse disposal facilities and the likes. Adeleye (2012) states that, the classification of housing however depends on the number of rooms, existing comfort, the form and the location respectively. Agbola (1998) consider housing as an issue that borders on the life of individuals as well as that of a nation. As such, he ascribes great significance to the role played by housing in ensuring human comfort by both nature and society. In addition, he emphasize that housing which is a combination of characteristics provides a unique home within any neighborhood, describing it as a collection of economic, social and psychological phenomena. Jiboye (2004), therefore, asserts:

"If the concept of housing is understood to represent the aforementioned expressions, then, housing designs and planning consideration should involve not only the physiological responses to the enclosed environment, but also the socio-cultural responses emanating from the socio-economic and cultural norms of the users. In this regard, all the ancillary services and community facilities, which are necessary for human wellbeing, including environmental and social services, personal safety and security, which are also essentials for housing should be provided."

In recent decades, there has been a growing emphasis on the housing sector by different Governments of the less developed countries (LDCs). Yet the adequate and good quality provision of this elementary need is not within the reach larger population of these countries (Abiodun, 1980; Olayiwola et al, 2005; National Housing Policy, 2006). Housing is a elementary human need. The understanding of its concept, as well as its components that provide for good quality, as is germane to this study is appraised.

The Oxford Advanced Learner's English Dictionary (2005) defines quality as the standard of something when equated to others in such category; on how good or bad something is. Nubi (2008) opined that quality cannot be considered differently from the process by which it is considered. Therefore, standards in housing are a measure of acceptability at a given time, place, in a given

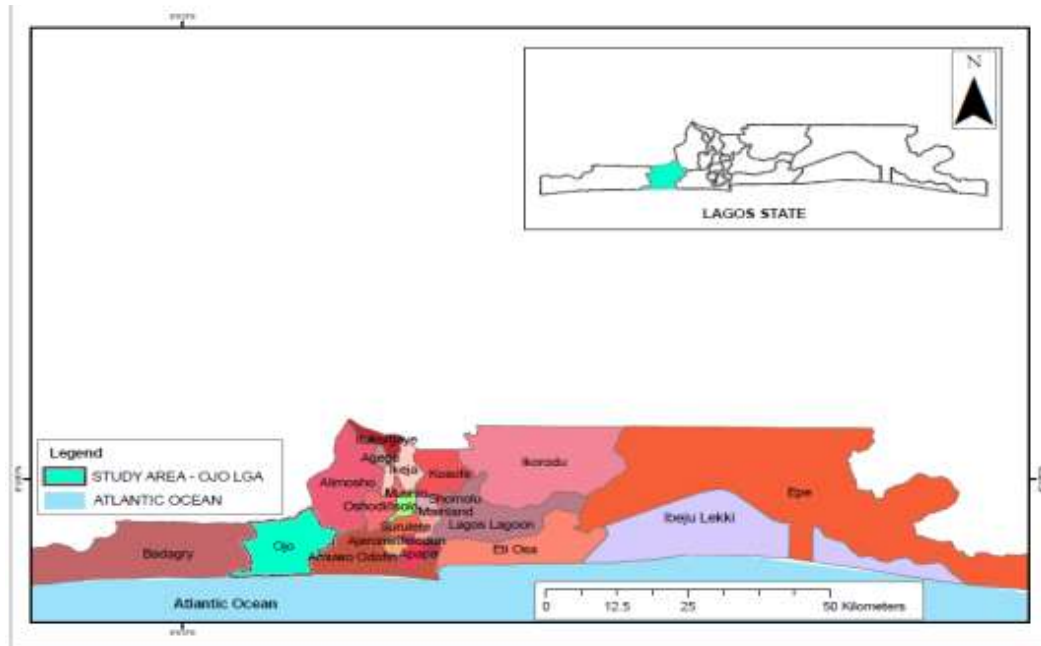


Figure 1. Study Area: Ojo LGA, July (2017).
Source (Lagos State University GIS Laboratory).

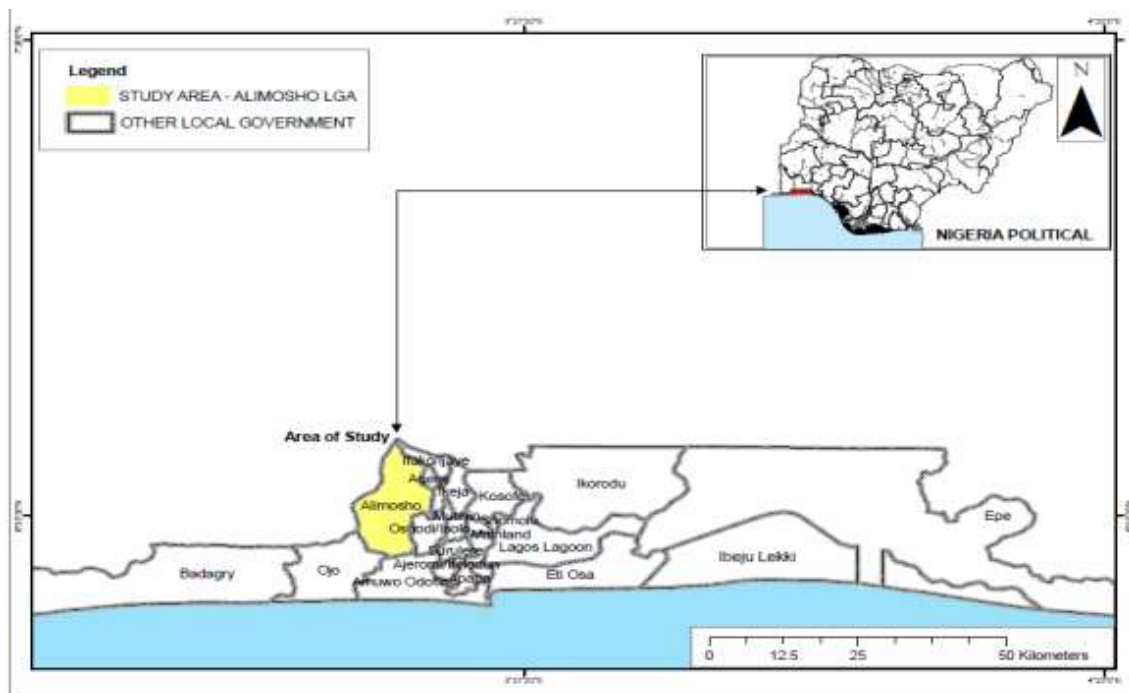


Figure 2. Study Area: Alimosho LGA, July (2017).
Source (Lagos State University GIS Laboratory)

set of cultural, technological and economic conditions. According to Nubi (2008) planners and designers have

used several criteria over the years to evaluate housing quality. These include:

- (1) The economic criteria such as the relationship between rent and income;
- (2) The physical criteria such as the integrity of the dwelling and the present plumbing fixtures;
- (3) Social criteria such as the incidence of diseases and the degree which overcrowding of housing occupies.

Quality housing standards are essential part of planning process. These do not only ensure the safety and wellbeing of inhabitant but also promote beauty, convenience and aesthetics in the overall built-up environment. Good quality housing means more than a roof over one's head but also includes adequate privacy; adequate space, accessibility; adequate security, structural stability and durability; adequate lighting, heating and ventilation; adequate basic infrastructure such as water supply, sanitation and waste-management facilities; suitable environmental quality and health-related factors; and adequate and accessible location with regard to work. All of these should be available at an affordable cost and the people should be involved in the planning process Olotuah and Aiyetan (2006).

Poor housing has impacts across a whole range of other aspects of life such as employment, as housing not only fulfills the basic human physical need for shelter but it also satisfies social necessities. A house provides a center for an individual and the basis for family life, emerging as an important symbol of social standing and aspirations. Therefore, the fulfillment of housing quality needs is a complex process, good housing must be appealing, and must comply with the general customs and habits of the people without that it may turn into a slum (Adeniyi, 1972).

Past and current housing programs do not pay adequate attention to housing quality (Onibokun, 1974 cited in Oni, 1988), indicating insufficiencies exist in housing. Goodman (1978) considers three basic factors as indicator of housing quality, which includes: financial burden, crowding, unit and neighborhood quality. His focus was on housing demand-type variables that influenced housing quality, based on the premise that housing supply type variables are controlled by design. The determinants of housing quality in the Goodman studies were assumed to be income, family size, education and race.

Perception of housing quality

Perception is the process of attaining responsiveness of the environment by organizing and understanding sensory information. Since the beginning of mankind, everyone has different perceptions, but these perceptions are also an expression of the time, context and culture each individual possess. Man reaches decisions and takes action within the framework of his perceived sets of elements and links rather than any externally defined

"objective set". The understanding of inhabitant's perception offers better information on their response to issues which may lead to more progressive decision of the policy maker.

Housing habitability

Housing habitability signifies the physical condition of dwellings (structurally, internally and externally); the existence of basic household facilities (such as cooking, washing and heating facilities); and the condition of the environment surrounding the home. It also includes the social, behavioral, cultural and personal characteristics of the residents and the nature of the institutional agreement under which the house is managed (Raven 1976; Onibokun 1998, Nandinee, 1999; Ayo, 2007, Jiboye, 2010, 2008). In recounting the physical conditions of dwellings, Nandinee (1999) emphasizes that the structural adequacy of housing is an important indicator. He examined the factors of structural adequacy as an attribute of housing quality. The essential components of habitability are that the house is in good physical shape, is energy efficient (takes less energy to build and operate), and is resource efficient (uses fewer non-renewable resources and makes efficient use of renewable resources).

Housing satisfaction

According to Ogu (2001), the perception of residential satisfaction is often adopted to evaluate residents' perceptions of their housing components and the environment meets a perceived standard. However, housing satisfaction is prejudiced by many factors in the system and socio-economic characteristics of the inhabitants. These factors may include: age, marital status, number of children and family size, socio-economic status, income, education, employment and welfare, duration of stay, physical characteristics of the housing, satisfaction with housing physical condition and management services, social participation and interface, past living conditions and residential mobility as well as future intention to move. Housing satisfaction is a complex attitude, satisfaction with the neighborhood and the area (Onibokun, 1974).

Public housing

Public housing refers to a form of housing provision, which highlights the role of the State (Government and its agencies) in helping to deliver housing, particularly for poor, low-income and more susceptible groups in the society. It has taken varied forms in different geographical contexts and other descriptive terms are

sometimes used in its place –such as social housing, state-housing, state-sponsored housing, welfare housing, non-profit housing, low-cost housing, affordable housing, and mass housing. Two broad approaches to public housing have been identified: namely Government-provided housing and Government-sponsored housing (Power, 1993).

Housing needs in Nigeria and some developing countries

Housing need according to Daramola (2006), is the statistical measure of the degree of housing inadequacy and quality of a people. It connotes dwelling units required to satisfy families' quest for accommodation, Adejumo (2008) sees it as the amount of dwellings to be built or improved to provide every family or household with adequate dwelling of acceptable standards.

The growing rate of urbanization in Nigeria is attracting an international attention because as it were, massive shortage in housing stock is made visible and intense due to increase in demand which thus overwhelms supply in this sector. For instance, in 1950s there were about 56 cities in the country out of which 10.6% of the people reside in these cities. Daramola (2006) notes that in 1961, the rate rose enormously to about 19.1 and 24.5% in 1985. Today, with a population of about 120 million, the country has about 30% residing in the cities. This accounts for the sprawling nature of these cities like Lagos and Abuja. Abuja for instance is one of the fastest growing cities in the world. In 1992, it was rated as one of the most beautiful cities in the world; however this story has changed today to poor enforcement (El-Rufai, 2004). It was designed for about 3 million at full growth, but as at 2004, it has an approximate population of about 6 million. The National Rolling Plan (NRP) specifies that the Nigeria requires about 500,000 and 600,000 units based on the room occupancy ratio of between 3 and 4. This exceptional rise in population and the size of our cities over the past few years have resulted in the acute deficiencies of basic essentials of living. In order to arrest the severe housing needs of the country, an estimate of about 121,000 housing units were required between 1994 and 1998. To achieve easy flow of capital, the number of the Licensed Primary Mortgage Finance Institution (LPMFI) increased from 251 to 274 between 1993 and to 276 between 1994 and 1994. Out of this estimate, in 1998, it declined to 115 in 1998. Never the less, the Federal Government amplified its investment on housing from N776.7 and N818.3 million between 1995 and 1998 (Ajanlekoko, 2001).

The poverty level of most Nigerians made it difficult for average Nigerian to own houses. About 30 per cent of the population with the lowest incomes does not have necessary funds to exercise an effective demand in the formal housing market. The 20 per cent 61 lowest on the

income scale earn below \$50 per month. Housing deficiency is more expressed in Lagos than any other city in Nigeria because the population is constantly on the increase. Opportunities of employment are very limited, and the population is growing at an alarming rate. Prospective tenants have to queue for more than a year on waiting lists before they can be considered for a rental unit. And rents are extremely on the high side; the average worker has to spend as much as 40 per cent of his/her income on rent. To aspire to own house is a dream realized only by the top 5 per cent of the income groups. Often a down-payment has to be paid two years in advance for a flat where agents sometimes end up duping people (Daramola, 2006) (Table 1).

METHODOLOGY

The study is based on the primary and secondary data. Primary source data was an extensive field survey whereby questionnaire administration, reconnaissance survey and observation were used. The reconnaissance survey was to familiarize with the study area, thereby identifying the low cost housing scheme. Secondary data were sourced from published, unpublished materials, annual reports and internet. Study area maps were extracted from the GIS laboratory of Geography and planning department of Lagos State University. Information about housing estate was sourced from both State and Federal Ministries of Urban and Housing, Lagos State Development Property. The administration of the questionnaire was carried out within the hour of 7am to 12noon on 1st of July, 2017. The questionnaire administration was used in gathering other relevant data and information for the research work, the instrument was carefully prepared through the consultation of journals and other relevant information's on housing qualities. A total of 100 structured questionnaires were administered considering the sizes of the estates, 50 was allotted to the public and 50 to the private estate respectively, 94 were considered valid for the research as six were not properly filled. Systematic random sampling techniques was adopted, where first twenty streets were carefully chosen from the beginning of the estates inward, and houses were then randomly chosen starting from the second house on each street. Thereafter one resident per house was chosen till the whole one hundred respondents were sampled. Descriptive statistical analysis was performed on the collected data and their percentage was tabulated with the aid of Microsoft Excel, while other analysis was carried out with the aid of statistical software. Results from the respondents were arranged in tabular form for clear understanding and pictorial representation of the derelict houses and road was not left out.

RESULTS AND DISCUSSION

Background of respondents

Table 2 reveal the gender of respondents from the two Estates under study, from 48 respondents sampled at Iba Estate, 75% of the respondents are male while 25% are female, respectively. On the other hand, out of the 46 respondents sampled from the Unity Estate, 63% are Male while 37% are female respectively. Table 3 reveals the marital status of the respondents. Out of the

Table 1. Estimated housing needs Nigeria (1991-2001).

Housing stock	Urban areas	Rural areas	Total
1991 (0.000 units)	3.373	11.848	15.221
Estimated no of households 2001	7.289	15.295	22.584
Required output 1991-2001 („000)	3.916	3.447	7.363
Required annual output, 1991-2001	391.6	344.7	736.3

Source: Ministry of housing and urban development.

Table 2. Gender of respondents.

Estate location		Frequency	Percentage
Iba Estate, Ojo	Male	36	75.0
	Female	12	25.0
	Total	48	100.0
Unity Estate Egbeda	Male	29	63.0
	Female	17	37.0
	Total	46	100.0

Source: Field work (2017).

Table 3. Marital status.

Estate location		Frequency	Percentage
Iba Estate, Ojo	Single	17	35.4
	Married	28	58.3
	Divorced	2	4.2
	Widowed	1	2.1
	Total	48	100.0
Unity Estate Egbeda	Single	5	10.9
	Married	35	76.1
	Divorced	4	8.7
	Widowed	2	4.3
	Total	46	100.0

Source: Field work (2017).

respondents from Iba Estate, 35.4% are single, 58.3% are married, 4.2% are divorced while 2.1% are widowed.

For unity estate, 10.9% are single, 76.1% are married, and 8.7% are divorced while 4.3% are widowed respectively. Table 4 reveals the education qualification of the respondents. It reveals that 2.1% of the Iba estate respondents are primary school holders, 31.3% are secondary school holders while, 50% are tertiary degree holders, and 16.7% has obtained other categories of qualifications, among the sampled respondents from Unity estate, the research shows 4.3% are primary school holders, 39.1% are secondary school holders while 56.5% has obtained tertiary certificate respectively.

Table 5 reveals the occupation status of the respondents. The data reveal that in Iba estate, civil servant represent 22.9%, professionals represent 37.5% while self-employed represent 38.6% of the respondents. On the other hand at Unity Estate, civil servant represent 21.7%, professionals represent 26.1% while self-employed represent 47.8 % of the respondents. Table 6 reveals the justification for choice of Estate. The table reveals that 22.9, 16.7, 25 and 35.4% decided to reside in Iba Estate for job opportunity, free vehicular traffic, access to facilities, and other factors respectively. At the Unity Estate on the other hand, 15.2, 52.2, 21.7 and 10.9% decided to reside in the Estate for job

Table 4. Educational qualification of the respondents.

Estate location		Frequency	Percentage
Iba Estate, Ojo	Primary	1	2.1
	Secondary	15	31.3
	Tertiary	24	50.0
	Others	8	16.7
	Total	48	100.0
Unity Estate Egbeda	Primary	2	4.3
	Secondary	18	39.1
	Tertiary	26	56.5
	Total	46	100.0

Table 5. Occupation status of the respondents.

Estate location		Frequency	Percentage
Iba Estate, Ojo	Civil servant	11	22.9
	Professional	18	37.5
	Self employed	19	38.6
	Total	47	97.9
	Total	48	100.0
Unity Estate Egbeda	Civil servant	10	21.7
	Professional	12	26.1
	Self Employed	24	47.8
	Total	45	97.8
	Total	48	100.0

Table 6. Justification for choice of estate.

Estate location		Frequency	Percentage
Iba Estate, Ojo	Job opportunity	11	22.9
	Free vehicular traffic	8	16.7
	Access to infrastructural facilities	12	25.0
	Others	17	35.4
	Total	48	100.0
Unity Estate Egbeda	Job opportunity	7	15.2
	Free vehicular traffic	24	52.2
	Access to infrastructural facilities	10	21.7
	Others	5	10.9
	Total	46	100.0

opportunity, free vehicular traffic, access to facilities, and other factors respectively.

The income generated by respondents in the study area is presented in Table 7. The survey reveals that at Iba Estate, 27.1, 52.1, 12.5 and 2.1% earns N100,000 to

200,000, N201,000 to 300,000, N301,000 to 400,000 and N401, 000 and above annually, respectively. While at the Unity Estate on the other hand , the survey reveals that at Iba Estate, 50, 32.6, 13 and 4.3% earns N100,000 to 200,000, N201,000 to 300,000, N301,000 to 400,000 and

Table 7. Income of respondents.

Estate location		Frequency	Percentage
Iba Estate, Ojo	100,000-200,000	13	27.1
	201,000-300,000	25	52.1
	301,000-400,000	6	12.5
	401, 000 and above	1	2.1
	Total	45	93.8
	No response	3	6.3
Unity Estate Egbeda	Total	48	100.0
	100,000-200,000	23	50.0
	201,000-300,000	15	32.6
	301,000-400,000	6	13.0
	401, 000 and above	2	4.3
	Total	46	100.0

Table 8. Household Size of the respondents.

Estate location		Frequency	Percentage
Iba Estate, Ojo	1-2	8	16.7
	3-4	18	37.5
	5-6	12	25.0
	Above 6	9	18.8
	Total	47	97.9
	No response	1	2.1
Unity Estate Egbeda	Total	48	100.0
	1-2	11	23.9
	3-4	28	60.9
	5-6	7	15.2
	Total	46	100.0

N401, 000 and above annually, respectively.

For the size of the respondents' household in the study area which is presented in Table 8 reveals that at Iba Estate, 16.7, 37.5, 25 and 18.8% of the respondents has 1 to 2, 3 to 4, 5 to 6 and 6 and above people under their roof as family members while at the Unity Estate on the other hand the survey reveals that, 23.9, 60.9, and 15.2% of the respondents has 1 to 2, 3 to 4 and 5 to 6 people under their roof as family members. Quality of the houses in the study area in terms of the facilities and infrastructures required for sustainable livelihood by the residents as stipulated by Town planning and sanitary regulations and bylaws in the state is presented in Table 9.

According to the data on the availability of sanitary facilities on the estate presented in Table 9, the government estate (Iba) has a mean value of 1.98,

standard deviation of 1.28, and standard mean of 0.185, while the private estate (Unity-Egbeda) has a mean value of 1.07, standard deviation of 0.25 and Standard Error Mean of 0.037 respectively. Considering the result aforementioned in Table 9 on the availability of the sanitary facilities in the study area, it reveals that the government estate sanitary facilities are found to be of higher quality than that of the privately owned estate. The survey, further reveals that at Iba Estate, 58.3, 8.3, 0.4 and 22.9% of the respondents makes use of the litter bin, Dino bin, dump sites and others respectively, while at Unity Estate, Egbeda, 93.5 and 6.5% make use of a litter bin and Dino bin (Plastic Dustbin) respectively only.

Considering the ventilation in the residential apartments in the estates, Table 4 above reveal that government estate has a mean value of 1.54, Standard Deviation value of 0.65 and Standard Error Mean value of

Table 9. Sanitary facilities in study area.

Type of estate			Frequency	Percentage	Valid percentage	Cumulative percentage
Government estate	Valid	Bin	28	58.3	58.3	58.3
		Dino bin plastic Waste bin)	4	8.3	8.3	66.7
		Dump Site	5	10.4	10.4	77.1
		Others	11	22.9	22.9	100.0
		Total	48	100.0	100.0	-
Private Estate	Valid	Bin	43	93.5	-	93.5
		Dino Bin	3	6.5	-	100.0
		Total	46	100.0	-	-
Residential ventilation in the study area						
Government estate	Valid	Well ventilated	25	52.1	52.1	52.1
		Fairly ventilated	21	43.8	43.8	95.8
		Poorly ventilated	1	2.1	2.1	97.9
		Not well ventilated	1	2.1	2.1	100.0
		Total	48	100.0	100.0	-
Private estate	Valid	Well ventilated	15	32.6	32.6	32.6
		Fairly ventilated	28	60.9	60.9	93.5
		Poorly ventilated	3	6.5	6.5	100.0
		Total	46	100.0	100.0	-
Water						
Government estate	Valid	Yes	33	68.8	71.7	71.7
		No	13	27.1	28.3	100.0
		Total	46	95.8	100.0	-
	No	Response	2	4.2	-	-
	Total		48	100.0	-	-
Private estate	Valid		35	76.1	76.1	76.1
		-	11	23.9	23.9	100.0
		-	46	100.0	100.0	-
Setback						
Government estate		Yes	11	22.9	22.9	22.9
		No	37	77.1	77.1	100.0
		Total	48	100.0	100.0	-
Private estate		Yes	9	19.6	19.6	19.6
		No	37	80.4	80.4	100.0
		Total	46	100.0	100.0	-
Road facility in the area						
Government Estate	Valid	Very good	20	41.7	44.4	44.4
		Good	15	31.3	33.3	77.8
		Poor	7	14.6	15.6	93.3
		Very Poor	3	6.3	6.7	100.0
	No	Total	45	93.8	100.0	-
		Response	-	3	6.3	-

Table 9. Contd.

Private estate	Valid	Very good	48	100.0	-	-
		Good	23	50.0	51.1	51.1
		Poor	11	23.9	24.4	75.6
		Very poor	11	23.9	24.4	100.0
	No Response	Total	45	97.8	100.0	-
				1	2.2	-
Power supply in the area						
Government estate	Valid	Frequent	8	16.7	16.7	16.7
		Somewhat frequent	25	52.1	52.1	68.8
		Not Frequent	11	22.9	22.9	91.7
		4.00	4	8.3	8.3	100.0
		Total	48	100.0	100.0	-
Private estate	Valid	Frequent	1	2.2	2.2	2.2
		Somewhat frequent	12	26.1	26.1	28.3
		Not frequent	29	63.0	63.0	91.3
		4.00	4	8.7	8.7	100.0
		Total	46	100.0	100.0	-
Security arrangement in the area						
Government estate	Valid	Yes	42	87.5	87.5	87.5
		No	6	12.5	12.5	100.0
		Total	48	100.0	100.0	-
Private estate	Valid	Yes	30	65.2	65.2	65.2
		No	16	34.8	34.8	100.0
		Total	46	100.0	100.0	-
Effectiveness of security arrangement						
Government estate	Valid	Somewhat effective	41	85.4	85.4	85.4
		Not effective	6	12.5	12.5	97.9
		Effective	1	2.1	2.1	100.0
		Total	48	100.0	100.0	-
Private estate	Valid	Somewhat effective	43	93.5	93.5	93.5
		Not effective	1	2.2	2.2	95.7
		Effective	2	4.3	4.3	100.0
		Total	46	100.0	100.0	-

Source: Computed by researcher (2017).

0.09 while, on the other hand, the privately owned estate revealed a mean value of 1.74, Standard Deviation value of 0.57 and Standard Error Mean value of 0.08 respectively. Thus, the privately owned estate has the highest ventilation level than the publicly owned estate. The research also reveals the estate with the highest number of pipe supplied water for the use of the residents, the government estate has a mean value of 1.28, Standard Deviation value of 0.46 and Standard Error

Mean value of 0.06 while the private estate on the other hand has a mean value of 1.28, Standard Deviation value of 0.43 and Standard Error Mean value of 0.06. The research thus revealed that government estate has more pipe-borne water system than the privately owned estate.

Observation on required set back between the dwelling unit from the road as stipulated in the building plans and state laws reveals that government estate has a mean value of 1.77, Standard Deviation value of 0.42



Figure 3. Picture showing the standard of structures and observed setback between structures in the private Estate.

Source: Author's Fieldwork (2017).

and Standard Error Mean value of 0.06, the private estate on the other hand has a mean value of 1.80, Standard Deviation value of 0.40 and Standard Error Mean value of 0.06, the research thus revealed that private estate observes the required set back between dwelling unit from road than the privately owned estate (Figure 3 and 4).

For security arrangement by the estates, the survey reveals that private estate has a mean value of 1.13, Standard Deviation value of 0.33 and Standard Error Mean value of 0.05, the private estate on the other hand has a mean value of 1.34, Standard Deviation value of 0.48 and Standard Error Mean value of 0.07. These data reveal that private estate has better security arrangement than the government estate both in terms of number and effectiveness of the arrangement.

For the state of infrastructure and amenities in the estates, the survey reveals that in the area of state of the roads and power supply within the estates, the government estate has a mean value of 1.13, standard deviation value of 0.33 and standard error mean value of 0.05, the private estate on the other hand has a mean value of 1.34, standard deviation value of 0.48 and standard error mean value of 0.07; a mean value of 2.23, standard deviation value of 0.83 and standard error mean value of 0.12 for government estate and on the other

hand, a mean value of 2.78, standard deviation value of 0.63 and standard error mean value of 0.09 for the private estate respectively in the study area (Figure 5 and 6).

As seen in Table 10 shows the student independent T-test for housing quality characteristics in the study area. The result reveals that among the independent variables that represent the housing quality characteristics such as available sanitary facilities, pipe-borne water system provision, security arrangement in the estate and state of power supply were statistical significant with ($t=4.757$, $t=-2.088$, $t=-2.616$, $t=-3.627$; $p < 0.05$).

Conclusion

After appraisal of both estates under study, the research thus revealed privately owned estates have the highest ventilation level than public estates. Also sanitary facilities in government estate were found to be of higher quality than in the privately owned estate. The characteristics of the setback observation in the two estates reveal that government estate observes setback than privately owned estates, in the public estate the building do not observe a uniform distance between buildings and the access roads as the estate utilizes the



Figure 4. Picture showing the standard of structures and setback not well observed and erection of temporary structures in the public Estate
Source: Author's fieldwork (2017).



Figure 5. Picture showing a well paved road in the private Estate.
Source: Author's fieldwork (2017).

setback for the construction of shops and temporary structures, the private estate have a minimal number of temporary structures. Also private estates have better security arrangement, both in terms of number and effectiveness unlike the public estate that has a porous border and gate, which makes the estate prone to late

night harassment and robbery, meanwhile report shows that most of the miscreant do not reside in the estate, but were able to gain entering due to poor security arrangement. The study further reveals the characteristics of the infrastructures and facilities such as roads and power supply arrangement and its effectiveness in the



Figure 6. Picture showing the poor state of the road in the public Estate due to lack of maintenance.

Table 10. Independent t-test on housing quality characteristics in the study area.

Housing quality parameters	t-test	df	Sig.(2-tailed)
Available sanitary facilities	4.757	92	0.000
Ventilation level of apartment	-1.556	92	0.123
Availability of pipe-borne water system	0.470	92	0.639
Pipe borne water system provision	-2.088	92	0.040
Set back between dwelling and the road	-0.393	92	0.695
Security arrangement in the ESTATE	-2.616	92	0.010
How effective is the security arrangement	0.651	92	0.517
State of the roads	0.596	92	0.552
State of power supply	-3.627	92	0.000
Alternative source of energy	-0.177	92	0.860

Source: Computed by researcher (2017).

two estates varies and the variation suggests that the private estate has better road infrastructure than the government-owned one, as majority of the roads in the government owned estate are not properly maintained as majority of the respondents complained of ineffective community development service, which has resulted to neglect of the road. There is steady power supply in both estates, which presumed is because of the revenue

generated from the resident in terms of power supply. Public housing programs in developing countries has been constantly criticized for failing to provide quality, affordable and adequate housing units to target population (Mukhija, 2004). Studies however reveal that Lagos state governments is not surrendering in their efforts at addressing the problem and providing adequate, affordable and sustainable housing through

the continual improvement in the state housing program.

RECOMMENDATIONS

In view of the foregoing, the researcher postulates the following:

- (1) There should be establishment of local housing trust funds for the development of affordable housing, as the research reveals so much pressure on the available facilities in the estates due to non-availability of substantial housing scheme.
- (2) Community development service should be put to work in the public Estate, as many of the facilities in the estate are in dilapidated state, such as the road, as many are of the opinion that Government property belongs to no one.
- (3) There should be periodic upgrade of facilities in the public estate, such as the sanitary facilities, as they are all in dilapidated state.
- (4) Security should be held in high esteem in both estates, there is high level of porosity which makes the estates exposed to intruders.
- (5) There should be an implementation of inclusionary zoning, reserving a specific percentage of housing units for lower-income households in new developments and making them affordable.
- (6) Employer assisted housing programs, through employee home ownership incentives should be introduced so the general public will not only depend on the public estate.
- (7) It is necessary to assess the capacity of the private sector in order to determine their eligibility for involvement in the establishment of new estates in order for the new estate developers to have a set standard.
- (8) It is however important to embark on more researches in order to understand the mechanism through which the private sector can be held accountable to deliver on quality housing, so there motive will not only be to exploit the citizens.
- (9) Provision of quality enabling environment for the private estates developer to operate, which will involve the support of the private sector by public involvement in form of incentives, new mode of operation and new set rules to moderate the operation between the private sectors and the inhabitant.
- (10) Low income estates are aimed at providing shelter to the common masses, rich men should not be entitled to buy from the houses. Houses should be built to beneficiaries' specifications and should be sold to them only. This calls for the involvement of the beneficiaries in the planning and implementation of the program.
- (11) Direct government provision of housing is required to provide for the needs of the low income and disadvantaged groups.
- (12) The National Housing Fund like we did mention must

serve the purpose for which it was created and the mortgage institutions must operate with low interest rate in giving out loans.

(13) Land ownership policy and documentation in the country should be reviewed with all seriousness.

(14) Periodic upgrading of social facilities in the estates should be done, not until when they are in shambles.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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