INNOVARE JOURNAL OF SOCIAL SCIENCES

Vol 14, Issue 2, 2026

ISSN - 2347-5544

Research Article

HOUSING INFRASTRUCTURAL FACILITIES AND RENTAL VALUES IN OLEH, DELTA STATE, NIGERIA

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Received: 17 Dec 2025, Revised and Accepted: 15 Jan 2026

ABSTRACT

This study was designed to examine the impact of housing infrastructural facilities on rental value in Oleh, and to examine, if any, spatial variation in rental values and in-house facilities within the urban area. A questionnaire survey based on a random sampling technique was used to select samples for the study. The data were analyzed, using the analysis of variance (ANOVA), and Multiple Linear Regression. Thirty-six percent of households in Oleh had no functional water system toilet/bathroom. The findings indicate that there is a general low level of the provision of infrastructure in the urban area and there are no significant differences in rental values and in-house facilities between the residential zones. It found that wall-fence (perimeter fence) and provision of burglary-proof (protector) had the most significant impact on rental values. Therefore, it was recommended that since the residents of Oleh are security conscious, property developers should always endeavor to provide security-enhancing facilities, especially a wall fence around the house and that, there is a need for property developers to provide and improve on the quality of the in-house facilities, especially toilet/bathroom facilities.

Keywords: Housing, Infrastructure, Facilities, Rental Values, Oleh, Delta State.

 DOI: http://dx.doi.org/10.22159/ijss.2026v14i2.56255. Journal homepage: https://innovareacademics.in/journals/index.php/ijss

INTRODUCTION

Irrespective of economic, social, or political status, one of the most important things in life to an individual is where to live. It is one of the three basic needs of man, coming next in importance to food. It is the most important for the physical survival of man. Housing is vital to human experience; it is the basis and foci of daily activities (Ozabor *et al.*, 2024). It is also a setting for many of the basic social and biological needs of the family. Housing is a space within which generations of families express their lifestyle, and preserve their history and identities of lineage (Awotona *et al.,* 1994 cited in Jiboye, 2004). Housing is a basic necessity in life and it can be achieved by either renting another person's or occupying one's own house or property (Onyemaobi and Aniah, 2023).

The importance of housing lies not only in its value for individuals and families who reside there, but also in the community in which it belongs. Housing, both in units or multiple forms, is a significant component of the physical form and structure of a community, while the human and family content of the house is part of the very spirit of life and prosperity of the society (Olayiwole *et al.,* 2005).

To a nation, housing represents an important sector of the economy and an index of its economic advancement. It is a major contributor to the physical assets of a nation (Ibagere, 2002). Adequate housing contributes to the attainment of physical and moral health of a nation and stimulates the social stability, the work efficiency, and the development of the individual (Olayiwole *et al.,* 2005).

Housing has been defined both as a verb or process and as a noun or product. As a verb, it has been defined as "the process of providing a large number of residential buildings on a permanent basis with adequate physical infrastructure and social amenities, (services) in planned, decent, safe, and sanitary neighborhoods to meet the basic and social needs of the population". (Federal Ministry of Works, Housing and Urban Development, 2002; Kuroshi and Bala, 2005 cited in Mallo and Anigbogu, 2009). As a noun, it has also been defined by the United Nations as a product in which man seeks shelter, security, comfort, and dignity. Thus, whether from the point of a verb or a noun, it is clear that housing is a complex package of goods and services. In more practical terms, these components include: Water supply, access road, burglary-proof, space, location, age, size of the unit, kitchen facilities, toilet/bathroom facilities, wall fence, ceiling, and floor finish. While it is clear that housing consists of several components, payment for housing, that is sale or rental value, is usually not disaggregated. Rather, they are summary payments for all components of this package. All attributes combine to provide adequate housing and each in turn affects housing and rental values. This is due to the fact that housing provides a combination of services that must be purchased as a package (Megbolugbe, 1986). According to Odunnaike and Olagoke (2023), the level of infrastructural facilities has a great influence on the value of a property. Irori (2024) also revealed that well-maintained road networks, reliable utilities, such as water and electricity; significantly enhance property value and rental yields.

It is generally believed that the provision of infrastructure in rented residential housing would continue to attract prospective households. In the course of this investigation therefore, it becomes pertinent to provide answers to the following questions; what are the various types of residential housing in Oleh?, what are the existing infrastructural facilities in the residential housing?, what are the characteristics of these existing housing infrastructural facilities in Oleh?, what is the range of rental values in Oleh?, is there any spatial variation in rental values and in-house facilities within the urban center?, what is the impact of the different in-house facilities on the rental values of houses in Oleh?. These are the questions that this study intends to provide answers.

METHODS

Overview of the study area

Oleh, which lies roughly to the South-East of Delta State, it is the headquarters of the Isoko-South local government area of Delta State. Oleh is located on latitude 5°28″ North and Longitude 6°13″ East. It was

created as a Local Government headquarters in 1991, and presently, Oleh serves as the administrative center for the Delta South senatorial district. It is bounded on the North and East by Owhe/Emevor and Ozoro, respectively (both towns in Isoko-North L.G.A), South by Irri, and on the West by Emede/Olomoro. The climate of Oleh is like that of other southern towns in Delta state. It has the wet equatorial type of climate influenced by its nearness to the Gulf of Guinea. The annual rainfall is about 2000 mm with a double maximum in and around June and September. The daily mean temperature is about 26°C with maximum and minimum temperatures put at 30°Cand 26°C, respectively. Oleh is a town in Isoko Land and by implication belongs to the Isoko-speaking ethnic group (people). The change of status in 1991 to a Local Government Headquarters and Delta South Senatorial District's administrative center has led to a phenomenal change in the political, social, economic, as well as the population of the town. As at 2006, the population of Isoko South was 227,712 with a growth rate of 3.18% (NPC, 2006). Since there are no locality figures at the moment, and assuming the same 3.18% growth rate, Oleh should have 23,468 persons, which is 9.98% of the Isoko South population. These changes, especially in population, according to Olujimi and Bello, (2009), can lead to a shortage of residential accommodation, which correspondingly can also lead to a skyrocketing of rent for the available residential houses.

Research method

The methodology for this study includes the design and the specific methods. The design refers to the overall strategy for the study, while the method implies specific ways of collecting data and information. The cross-sectional survey research design was adopted. Specifically, data were collected at one point in time from the samples selected to describe the entire population at the time of the study in the study area. The primary data were generated from a field survey conducted through a questionnaire: First, the study area was divided into ten zones. Generally, according to Mallo and Anigbogu (2009), stratification is made on the criteria or basis that such locations are delineated by either natural or man-made features (e.g., minor, secondary, and main roads, water course, mountain, school, and rail line, etc.,). However, there are no natural features on which to base such divisions in the study area. Moreover, division by natural features is not likely to reflect differences in the variables of interest in the study. Consequently, the town was divided into zones on the basis of man-made features (roads). On this basis, the zones identified by the Works Department, Isoko South LGA, used in the study are as follows:

- Zone one –Emore, I.D.C. and Odoro roads interstice
- Zone two –Okalibostreet, Post office and Emiye roads interstice.
- Zone three –Akpotu lane, I.D.C. and Emore roads interstice.
- Zone four –Ogbemudia, and Emiye roads interstice
- Zone five –I.D.C Road and Akpotu Lane interstice
- Zone six – Irri and old Ozoro roads interstice
- Zone seven – Irri road and Agbama layout interstice
- Zone eight – New Emede and Evivie roads interstices
- Zone nine – Old Olomoro road and Mechanic village interstice
- Zone Ten – Esigie and Okpohro Layouts interstice

Next, in each of the zones identified above, five streets were randomly selected. Finally, in each of the randomly selected streets, four households that are rent paying were selected for interview, making a total of twenty households for each zone, and one questionnaire was administered to each selected household. A total number of 200 questionnaires were administered. In a situation where more than one household resides in a particular housing unit, only one household was interviewed. The interview is targeted at only the head of the household, but in the absence of the head, the spouse was interviewed. The issues that were raised in the questionnaire, among others, include the type and level of available infrastructural facilities and rental values of housing in the study area. However, the specific facilities under study include- in-house water supply, access road, floor finish, burglary-proof, kitchen facilities, toilet/bathroom facilities, ceiling, and wall fence. While rental values were based on monthly rental values; level of infrastructural development was based on the percentage of houses that have a specified facility in each of the zones. Thus, the following indicators were applied:

- % of houses with access to in-compound borehole.
- % of houses with access to a motorable road.
- % of houses with tiles/terrazzo floor finish.
- % of houses with burglary-proof in entrance/windows.
- % of houses with kitchen accessories/store.
- % of houses with a water system toilet/bathroom.
- % of houses with a wall fence.
- % of houses with POP/PVC Ceiling.

The analysis of variance (ANOVA) was used to test, if any (i) variability in prices and (ii) housing attributes among the various identified zones. The ANOVA focuses on variability, and the basic model according to Hinkle *et al*. (1979) is given as:

$$x_{ij}=\mu + \propto_j + \varepsilon_{ij} \qquad (1)$$

Where:

x_{ij}=the ith score in the jth group
μ=the grand mean of the population
$\propto_j=\mu_j-\mu$=the effect of belonging to group j.
ε_{ij}=random error associated with the scores

The F-ratio was then used to test for statistical significance. The f-ratio of the two variance estimates (between- group and within – group) is express as:

$$F = \frac{MS_B}{MS_W} = \frac{Explained\,variance}{unexplained\,variance} \qquad (2)$$

Multiple Regression was used to determine the interrelationships between each of the isolated facilities (independent variables) and the rental values of housing (dependent variable). Regression, according to Gupta (2001), is the measure of the average relationship between two or more variables in terms of the original units of the data. The model is not only capable of handling the problem of interactions among the independent variables, but also it enables us to know the contributions or the importance of each variable to the explanation of variation in the dependent variable (rental value). It also allows for the prediction of the value of the dependent variables. The Multiple Regression takes the form:

$$Y=a+b_1x_1...b_nx_n \qquad (3)$$

For this study, with eight independent variables, the model becomes:

$$Y=a+b_1x_1+b_2x_2+b_3x_3+b_4x_4+b_5x_5+b_6x_6+b_7x_7+b_8x_8 \qquad (4)$$

Where Y=Dependent variable (Rental value), i.e the mean rental value for each zone.
X=Independent variables (Infrastructural facilities)
X_1=Water supply (i.e., % of houses with access to in-compound borehole in each zone)
X_2=Access Road (i.e., % of houses with access to motorable road in each zone)
X_3=Floor finish (i.e., % of houses with tiles/terrazzo floor finish in each zone)
X_4=Burglary proof (i.e., % of houses with burglary proof in entrance/windows in each zone)
X_5=Kitchen facilities (i.e., % of houses with kitchen accessories/store in each zone)
X_6=Toilet/Bathroom facilities (i.e., % of houses with water system in each zone)
X_7=Wall fence (i.e., % of houses with wall fence in each zone)
X_8=Ceiling (i.e., % of houses with POP/PVC Ceiling in each zone)

Data presentation and analysis

A total number of 200 questionnaires were administered in ten designated zones. In each of the 10 zones, 20 questionnaires were

distributed to randomly selected households**.** All 20 questionnaires were retrieved in a usable form in only four zones, that is, zone three, six, seven, and ten, 19 were retrieved in zones two, five, and nine, 18 in zones one and eight, and only 15 in zone four, making a total of 188 questionnaires. The researcher was made to drop questionnaires for the respondents to complete because of their absence at home during the working period. This was responsible for the law recovery rate of questionnaires in most of the zones, especially in zone 4.

RESULTS

Types of dwelling units in Oleh

Housing in Oleh covers a wide range of types, which can be grouped into 5 types for convenience of discussion. These are Rooming houses (face-to-face), self-contained apartments, Block of flats, Bungalow and Duplex. The rooming, as the name implies, is a type of building in which it is designed on a room basis, arranged on two opposite rows, separated with a long passage. Residents share the facilities, such as the toilet, kitchen, and bathroom. It can be in the form of a bungalow or a storey building. The self-contained are room and parlor apartments containing kitchen, toilet, and bathroom for the use of only the occupants of the apartment. Block of flats are two or more flats combined on the same plot. It could be a bungalow or a storey building. The bungalow is a single flat inclusively built on a site. It promotes the privacy of occupants or tenants. The Duplex is essentially depicted in its design where the sitting room and the kitchen are located in the ground floor, while the bedrooms and the conveniences (bathroom, toilet) and private sitting room are in the first floor. It is a building essentially for the high – income group.

Table 1 shows that 27.7% of the sampled houses are "face-to-face" type. This type of housing is very prominent in zone 5 and in zone 1, where 63.1% and 61.1% of all houses in these zones, respectively, are accounted for by this housing type. On the other hand, only 5% of the houses in zone 6 are accounted for by this housing type.

However, 35.6% 0f the entire houses are blocks of flats. The highest percentage of the block of flats are found in zones eight, ten, and four, where they account for 61.1%, 50%, and 46.7%, respectively, of all the houses in the zone. The table also indicates that only 9.6% of the houses are bungalows, although no such housing type exists in zones four, five, and nine. The low percentage of the bungalows is as a result of the fact that most of such housing types are owner-occupied. Duplex also accounted for just 3.2% of the entire houses, which is also based on the fact that they are mostly occupied by the owners. They are concentrated in zones four, one, and eight, with 6.1%, 5.6%, and 5.6%, respectively, of the houses in these zones accounted for by this housing type.

Available In-house facilities

The specified level of facilities under study include: In-compound boreholes, Tarred road, Tiles/Terrazzo floor finish, Burglary Proof in entrance and windows, Kitchen with accessories and a store room, water system Toilet/Bathroom, Wall Fence (perimeter fence), and POP/PVC Ceiling. The provision of these facilities cuts across the urban center, but the level of provision varies from one zone to the other. Table 2 shows that 41.5% of sampled houses are provided with In-compound boreholes. This type of facility is very prominent in zones 4 and 8, where 73.3% and 61.1%, respectively, of the houses are accounted for by this facility. On the other hand, none of the zones had <22.2% of its houses provided with this facility. However, 35.1% of the entire houses have access to tarred roads. The highest percentage of the tarred roads is found in zone 8 with 83.3%, but none the houses in zone 4 have access to a tarred road. Houses with tiles/terrazzo floor finish accounted for 32.4%, they are more prominent in zone 7 with 88.9%, and less prominent in zone 3 with 5.3%. The houses provided with burglary proof in entrance and windows accounted for 41.5%; these houses are more in zones 6 and 9, where 66.7% and 62.5% of houses, respectively, have this facility. The table also indicates that 20.2% of the entire houses had well equipped kitchen, including a store. Such houses are more in zone 6, with 40.0%. Houses with a water system toilet/bathroom accounted for 61.7%, and they are concentrated in zones 6 and 8, where 94.7% and 83.3% of houses, respectively, have this facility. On the other hand, no zone had <38.9% of its houses provided with this facility. Only 26.1% of the entire houses had a perimeter wall fence. These houses are mostly found in zone 6, where 50.0% its houses are provided with the facility. Furthermore, houses with POP/PVC ceiling accounted for just 14.9%. They are more prominent in zone 7 with 35.0% and less prominent in zone 2 and 9, where only 5.3% each of the houses has the facility.

Table 1: Distribution of dwelling unit by types and by zones (% in parenthesis)

Types	ZONES										Total
	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Z9	Z10	
Face-to-face	11 (61.1)	6 (31.6)	9 (45)	1 (6.7)	12 (63.1)	1 (5)	4 (20)	1 (5.6)	3 (15.8)	4 (20)	52 (27.7)
Self-contained	2 (11.1)	7 (36.8)	3 (15)	6 (40)	3 (15.8)	5 (25)	5 (25)	4 (22.2)	7 (36.8)	3 (65)	45 (23.9)
Block of flats	2 (11.1)	5 (26.3)	5 (25)	7 (46.7)	3 (15.8)	9 (45)	6 (30)	11 (61.1)	9 (47.4)	10 (50)	67 (35.6)
Bungalow	2 (11.1)	1 (5.3)	2 (10)	—	—	5 (25)	4 (20)	1 (5.6)	—	3 (15)	18 (9.6)
Duplex	1 (5.6)	—	1 (5)	1 (6.7)	1 (5.3)	—	1 (5)	1 (5.6)	—	—	6 (3.2)
Total	18 (9.6)	19 (10.1)	20 (10.6)	15 (8.1)	19 (10.1)	20 (10.6)	20 (10.6)	18 (9.6)	19 (10.1)	20 (10.6)	188 (100)

Source: Authors Fieldwork

Table 2: Distribution of dwelling units by specified level of in-house facilities and by zones

Specified level of facilities	ZONES										Total
	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Z9	Z10	
In-compound borehole	7 (41.2)	6 (31.6)	10 (50)	11 (73.3)	4 (22.2)	8 (42.1)	5 (25)	11 (61.1)	9 (50)	7 (35)	78 (41.5)
Tarred road	4 (22.2)	5 (26.3)	13 (65)	—	10 (52.6)	5 (26.3)	6 (33.3)	15 (83.3)	3 (16.7)	5 (25)	66 (35.1)
Tiles/Terazo	6 (35.3)	4 (21.1)	1 (5.3)	3 (23.1)	3 (16.7)	12 (60)	16 (88.9)	7 (38.9)	5 (26.3)	4 (21.1)	61 (32.4)
Burglary in entrance/ window	9 (90)	5 (35.7)	6 (35.3)	9 (60)	4 (57.1)	12 (66.7)	8 (47.1)	9 (47.4)	10 (62.5)	6 (40)	78 (41.5)
Kitchen with a store.	5 (27.8)	2 (10.5)	3 (15.8)	2 (13.3)	3 (16.7)	8 (40)	6 (31.6)	3 (16.7)	3 (15.8)	3 (15)	38 (20.2)
Water system toilet/bath	7 (38.9)	13 (68.4)	7 (50)	11 (73.3)	10 (52.6)	18 (94.7)	11 (61.1)	15 (83.3)	13 (68.4)	11 (55)	116 (61.7)
Wall fence	4 (25)	5 (26.3)	4 (23.5)	2 (14.3)	6 (35.3)	10 (50)	6 (33.3)	5 (31.3)	4 (22.2)	3 (16.7)	49 (26.1)
POP/PVC ceiling.	2 (11.8)	1 (5.3)	2 (10)	2 (13.3)	2 (11.1)	6 (30)	7 (35)	3 (16.7)	1 (5.3)	2 (10)	28 (14.9)

Source: Author Fieldwork

Table 3: Distribution of dwelling units by level of rents and by zones in Oleh (% in parenthesis)

Monthly rent	ZONES										Total
	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Z9	Z10	
N 2,000	8 (44.4)	4 (21.1)	5 (25)	3 (20)	5 (26.3)	——	2 (10)	3 (15.8)	2 (10.5)	2 (10)	34 (18.1)
N2,000–4,000	4 (22.2)	5 (26.3)	8 (40)	2 (13.32)	7 (36.8)	2 (10)	6 (30)	——	4 (21.1)	2 (10)	40 (21.3)
N4,000–6,000	3 (16.7)	6 (31.6)	2 (10)	7 (46.7)	1 (5.3)	3 (15)	4 (20)	6 (33.3)	7 (36.8)	9 (45)	48 (25.5)
N6,000–8,000	2 (11.1)	2 (10.5)	3 (15)	1 (6.7)	1 (5.3)	4 (20)	3 (15)	5 (27.8)	3 (15.8)	6 (30)	30 (16.0)
Over 8,000	1 (5.6)	2 (10.5)	2 (10)	2 (13.3)	5 (26.3)	11 (55)	5 (25)	4 (22.2)	3 (15.8)	1 (5)	36 (19.1)
Total	18 (9.6)	19 (10.1)	20 (10.6)	15 (8.1)	19 (10.1)	20 (10.6)	20 (10.6)	18 (9.6)	19 (10.1)	20 (10.6)	188 (100)

Source: Authors Fieldwork

Level of rents in Oleh

The monthly rental values, that is, the total monthly rent paid by household irrespective of the number of rooms in Oleh, range from <₦2,000 to over ₦8,000. For convenience of measurement and discussion, this range of monthly rental values were grouped into five and ranked accordingly from least to highest. Rent in Oleh is exclusive; it does not include any form of facility bill.

Table 3 shows that 18.1% of dwelling units in Oleh are rented for <N2,000 monthly. The dwelling units within this rental range are concentrated more in zone one were 44.4% of the houses fall within this range. At the other extreme, there is no dwelling unit in zone six that falls in this rental range. In all, 21.3% of dwelling units fall within the rental range of N2, 000-N4, 000 monthly. The dwelling unit within this rental range is mostly concentrated in zone five were 36.8% of houses fall within the range. No dwelling unit in zone eight falls within this rental range. Dwelling units within the rental range of N4,000–N6,000 monthly accounted for 25.5% of houses. These are largely concentrated in zones four and ten were 46.7% and 45%, respectively, of the houses fall within this range. Furthermore, rents for 16% of the dwelling units, mostly in zones ten (30%) and eight (27.8%) in the range of N6,000–N8,000 monthly. Rents for another 19.1% of the dwelling units are over N8,000 monthly. These upper-rent housing types are concentrated only in zone six, where 55% of the dwelling units fall within this rental range.

Variability in rental values and in-house facilities in Oleh

The ANOVA (Tables 4 and 5) was used to show if there are differences in (i) rental values and (ii) in-house facilities among the various identified zones in the town (see Table 2 and 3 for raw data).

From the result of the analysis presented in Table 4, the 'F'-value, 0.068, is not critical at the 0.05 level, implying there is no significant difference between the various zones in terms of rent. However, the fact that the result is not statistically significant does not mean there is no variability in rental values among the zones. It only means that the level of variation is not large enough in Oleh to make statistical significance.

Table 2 shows the raw data that was used for the ANOVA for the in-house facilities as presented in Table 5. From the result presented in Table 5, the F-value, 1.516, is not critical at the 0.05 level, implying that there is no significant difference between the various zones in terms of in-house facilities.

Oleh is a small urban area, and at the moment, there are no significant land use segregation. All developmental processes take place everywhere in the town. The quality of housing found in one zone can also be found in other zones. The range of rental values and level of infrastructure in Oleh, therefore, cuts across the various zones, so there is little or no variation at all.

Analysis of the contribution of the various in-house facilities to rental values

This section examines the relationship among the various in-house facilities and their contributions to rental value in Oleh. In doing this, the multiple regression model was applied. As stated earlier, we

Table 4: ANOVA table showing differences in rental values between zones

Rental value (month)					
ANOVA	**Sum of squares**	**df**	**Mean square**	**F**	**Sig.**
Between groups	4.320	9	0.480	0.068	1.000
Within groups	280.800	40	7.020		
Total	285.120	49			

ANOVA: Analysis of variance

Table 5: ANOVA table showing differences in in-house facilities between zones

In-house facilities					
ANOVA	**Sum of squares**	**df**	**Mean square**	**F**	**Sig.**
Between groups	233.612	9	25.957	1.516	0.160
Within groups	1198.875	70	17.127		
Total	1432.488	79			

ANOVA: Analysis of variance

regressed the mean monthly rental value for each zone (Y) on eight independent variables; water supply (x_1), access road (x_2), floor finish (x_3), Burglary proof (x_4), kitchen facilities (x_5), toilet/Bathroom facilities (x_6), well-fence (x_7), and ceiling (x_8). Table 6 shows the correlation matrix produced by this analysis.

The correlation matrix table shows that the monthly rent has a relationship of 0.053 correlation coefficient with water supply and access road. It also has a relationship of 0.631 correlation coefficient with floor finish, 0.043 with burglary proof, 0.485 correlation coefficient with kitchen facilities, 0.629 with toilet/bathroom facilities, 0.930 with wall-fence, and 0.743 correlation coefficient with ceiling. Table 6 also reveals that all the variables had high correlation with each other. Based on this, a stepwise regression was adopted. From the empirical result of the stepwise regression, only two of the eight infrastructural facilities are very crucial for the determination of rental values by the occupants of houses in Oleh.

The two infrastructural facilities that are most crucial in determining rental values in Oleh are the wall-fence and burglary-proof. The model summary table indicates that the wall-fence plays the most crucial role on rental value in Oleh with R^2 value of 0.865. While the combination of wall-fence and burglary-proof has an R^2 value of 0.932, implying that the two infrastructural facilities put together contributed 93% in the determination of rental values in Oleh. The model is highly significant (Table 8).

These two infrastructural facilities are security and safety inclined. It can therefore be said that households in Oleh valued the safety and security of their lives and properties so much that they are ready to offer an increased rent for apartments where these two infrastructures (wall fence and burglary proof in entrance and windows) are available. On a general note, these two infrastructural facilities are mostly available in houses in zones five, six, and seven.

Table 6: Correlation matrix of regression analysis

Items	Correlations	Rental value (month)	Water supply	Access to road	Floor finish	Burglary proof	Kitchen facilities	Toilet/Bath facilities	Wall/ fence	Ceiling
Rental value (month)	Pearson correlation	1	0.053	0.053	0.631	0.043	0.485	0.629	0.930**	0.743*
	Sig. (2-tailed)		0.885	0.883	0.051	0.906	0.155	0.051	0.000	0.014
Water supply	Pearson correlation		1	0.198	0.004	0.701*	−0.282	0.595	−0.081	0.087
	Sig. (2-tailed)			0.583	0.992	0.024	0.430	0.069	0.824	0.811
Access to road	Pearson correlation			1	−0.283	−0.062	−0.457	0.134	−0.081	−0.084
	Sig. (2-tailed)				0.428	0.866	0.184	0.713	0.824	0.817
Floor finish	Pearson correlation				1	−0.164	0.682*	0.196	0.770**	0.899**
	Sig. (2-tailed)					0.650	0.030	0.586	0.009	0.000
Burglary proof	Pearson correlation					1	−0.272	0.520	−0.225	0.031
	Sig. (2-tailed)						0.446	0.124	0.532	0.931
Kitchen facilities	Pearson correlation						1	0.170	0.648*	0.578
	Sig. (2-tailed)							0.639	0.043	0.080
Toilet/bathroom facilities	Pearson correlation							1	0.473	0.335
	Sig. (2-tailed)								0.167	0.344
Wall-fence	Pearson correlation								1	0.751*
	Sig. (2-tailed)									0.012
Ceiling	Pearson correlation									1
	Sig. (2-tailed)									

**Correlation is significant at the 0.01 level (2-tailed), *Correlation is significant at the 0.05 level (2-tailed), [a]List wise n=10

Table 7: Model summary of regression analysis

Model summary				
Model	**R**	**R-Square**	**Adjusted R square**	**Standard error of the estimate**
1	0.930[a]	0.865	0.848	3.23756
2	0.965[b]	0.932	0.913	2.45440

[a]Predictors: (Constant), Wall-fence, [b]Predictors: (Constant), Wall-fence, Burglary proof

Table 8: ANOVA table explaining the significance of regression analysis

ANOVA						
Model		**Sum of squares**	**df**	**Mean square**	**F**	**Sig.**
1	Regression	536.782	1	536.782	51.211	0.000[a]
	Residual	83.854	8	10.482		
	Total	620.636	9			
2	Regression	578.468	2	289.234	48.013	0.000[b]
	Residual	42.168	7	6.024		
	Total	620.636	9			

[a]Predictors: (Constant), Wall-fence, [b]Predictors: (Constant), Wall-fence, Burglary proof, [c]Dependent Variable: Rental value (Month). ANOVA: Analysis of variance

SUMMARY OF FINDINGS

The aim of this study is to examine the contributions of various housing infrastructural facilities on rental values in a Nigerian small urban center. The result of the findings indicates that the quality of housing in Oleh, especially in relation to toilets/bathroom facilities is poor; 36.2% of the entire houses had no functional water system toilets/bathrooms. There are no differences in rental values and housing quality, in terms of in-house facilities between the residential zones. This is so because, the rental value of a particular housing with certain infrastructure in one zone is the same for a similar housing in other zones across the urban center. So there is little or no variation in rental values and attributes within the urban center. The findings indicate that perimeter wall fence and complete burglary-proof (in entrance and windows) had the most crucial impact on rental values. The combination of both infrastructure explained 93% of the variation of rental values in Oleh, an indication that the residents in Oleh are conscious of their lives and properties.

CONCLUSION AND RECOMMENDATIONS

The study has investigated into the contribution of housing infrastructural facilities on rental values in Oleh. It has concluded that there is little or no variation in terms of in-housing facilities as well as rental values among the areas (zones) in the town. In other words, there is no area that is most preferred to another in the town in terms of housing facilities and rental values. Nevertheless, while property development should spread across the town, it should be noted that the provision of security-enhancing facilities, such as a wall-fence around the house and burglary roof (protector) in entrance and window has 93% contribution to rental values in the town. Based on the findings of this study, the following recommendations are made;

a. Prioritize security-enhancing infrastructure as perimeter wall fences and burglary-proof installations, significantly influence rental values; thus, property developers should ensure these features are included in their designs. Security is a key concern for residents, and addressing it can attract higher rental incomes.
b. Given the low quality of toilet and bathroom facilities observed in a significant proportion of houses, efforts should be made to upgrade these amenities to meet modern standards. This would enhance overall living conditions and likely increase property demand and value.
c. With little variation in housing quality and rental values across zones, developers are encouraged to distribute infrastructural improvements uniformly across the town. This ensures balanced urban development and sustains equitable property value growth.
d. To improve access to facilities, such as motorable roads, water supply, and modern ceiling designs, collaboration between private property developers and local government authorities is recommended.
e. While high-quality housing is desirable, affordable housing options should also be developed to cater to lower-income residents, especially in areas with low rental value ranges.
f. Conduct workshops or training for landlords and developers on the economic benefits of investing in key infrastructure, particularly those with proven impacts on rental value.

ACKNOWLEDGMENTS

The authors acknowledge all individuals who provided insights by filling the research questionnaire and those who corrected and proof-read the manuscript before submission.

AUTHOR CONTRIBUTION

Author OIO conceived the study, collected data while author OVN took part in the data analysis and prepared the manuscripts. Both authors contributed to review and approved the first paper draft sent to the journal for peer review.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHOR FUNDING

No funding was received for this study. It is self-funded

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