Rental and Tenement Housing Problems in Sapele Local Government Area, Delta State

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Abstract

Rental/tenement housing problem is a persistent sustainable development challenge that affects livability, particularly in developing countries. The research examined the availability of rental housing, accessibility of rental housing location and neighbourhood facilities, environmental condition and overcrowding as factors of rental/tenement housing problems in Sapele Local Government Area. A total of 384 questionnaires were systematically distributed to household heads and 339 were returned. Data were analysed using both inferential and descriptive statistics. The result revealed that there is inadequacy in the availability of rental housing, and that the location of rental housing is highly accessible and rentals have high accessibility to neighbourhood facilities. It was found that there is an association between road conditions and the level of impediment to rental housing unit. The findings further showed that there was low crime rate and the study area had low susceptibility to flooding. Rental housing was found not to be affordable since a higher percentage of residents spends more than 30% of their income on rent and the maximum occupancy ratio was 2 persons per room and of such, there is no problem of overcrowding and privacy. The findings also revealed that there is a link between the number of persons per room and the level of privacy. It is recommended that government should be more involved in the provision of low-income rental housing units and formulation of rental policy.

Keywords: Urbanisation, Tenancy, rental housing, affordability, and accessibility

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Introduction

The phenomenal growth in urban population in this contemporary urban era has been well acknowledged by scholars (Agbaje et al., 2017; Rilwani & Bello, 2020). According to United Nations, in 2018, 55% of the world's population were living in urban areas and by 2050, it was projected to reach 68% (United Nations, 2018). According to Graziano da Silva (2017), the growing urban population will be visible in Africa, as most of the continent's increasing population will be living in cities. The factors responsible for the growth of the urban population have been linked to increased fertility, a decline in mortality, and high influx of migrants predominantly from rural areas and smaller urban centres that seek improvement in their social and economic wellbeing (Whiteet al., 2008; United Nations, 2008; Sani & Gbadegesin, 2015; United Nations 2018; Edohen & Ighedosa, 2020). If urbanisation is not properly managed, its advantages may be outweighed by emerging negative impacts such as housing shortages, widespread pollution, traffic congestion, municipal waste management, increased crime, unemployment, and social vices (Kuddus et al., 2020). Nigeria's cities are overwhelmed with the influx of migrants from rural areas and increased birthrate. This has led to immense pressure on urban facilities creating the problem of environmental decay, inadequacy in housing, social vices, and security issues. The urban poor bears the brunt of housing shortage since inadequate supply of affordable housing by the formal sectors is a significant reason for the development of slums and informal settlements.

Globally, the inadequacy of urban housing is a growing concern among many policymakers. Urban housing is one of the most important and demanding urban issues (Yakubu, et al., 2014). According to a recent analysis on the housing market in Nigeria, there are 23 homes for every 1000 people. The country's anticipated housing shortfall as of December 2018 was a startling 20

million units, an increase of almost 15% from the statistics from January 2019. The deficit must be funded with about N21 trillion. The present deficit is disturbingly huge for a country with a population of about 200 million. The housing shortage in Nigeria was 7 million units in 1991; it increased to 12 million in 2007, 14 million in 2010, and 20 million units as of now. On the other hand, rents and home prices have increased faster than overall inflation. To worsen the situation, there are even more extremely costly homes available for purchase or rental on the market (Moore, 2019). The problem of getting vacant rental housing is increasingly acute in larger cities and has become a pressing issue in recent years, particularly in the Sub-Saharan countries such as Nigeria. Urban housing ought to be provided by the formal sectors (federal and state governments) as a form of social services provision to the people (Oladimeji, 2021).

Most contemporary African cities and towns are characterised by housing problems (lack of water, poor sanitation, and lack of housing facilities) (Ahmed, et al., 2019). Scholars have attributed the housing problem to the lack of housing supply, inaccessibility of land, high cost of building materials, water supply, access roads, electricity, telecommunication facilities as well as social infrastructure (hospitals, schools, markets, library) (Omole, 2010; Makindle, 2014). Consequently, it has been established that Nigerian urban centres are in high demand of good and adequate housing to meet the housing needs of the people (Omirin, Olusegun & Amune, 2016). The problem of inadequacy in the supply of housing has been exacerbated by a combination of factors which include a rundown environment, unlivable houses, increasing population, and inadequate supply of housing. (World Economic Forum, 2017). Access to good and affordable housing has emerged as one of the most unnerving challenges of the 21st Century (Omirin et al., 2016). One way to provide housing for this increasing urban population is through rental

housing. Thus, rental housing can be considered as be a solution to the barriers of homeownership (Omirin, et al., 2016).

In many Nigerian cities, the majority of residents resides in rental housing units, while others who own their houses and those who live in a rent-free house such family houses and with relatives are a minority (Jibunoh, 2009). Rental housing is one of the means of curbing the challenges associated with housing shortages and this is evident in the millions of people in developing and developed countries who prefer to rent, rather than own the housing unit in which they dwell (Omirin et al., 2016) for reasons that include, low-income households who cannot presently meet the expense of home ownership, difficulty in getting genuine land, recent urban migrants who prefer centrally located rental accommodation that gives them flexible mobility between work, social, commercial & recreational trips, etc. Rental housing has always provided a wide-range choice of homes for people at all phases of life. Renting is more beneficial to the development of compact cities, a system of development that favours public transport system and cuts energy consumption (Bouillon, 2012; Gilbert, 2015).

Despite the advantages of rental housing, it is not without its challenges. In developing countries, most landlords exploit the poor and vulnerable tenants, by charging them high rents for crowded and sub-standard housing facilities. Agents charge high percentage fee for helping to search and connect potential tenants with landlords. Eviction is common and renting is perceived to give tenants little in the way of housing or accommodation security. Rental housing at the lower end of the market has often been seen as being masked in illegality and as contributing to inner-city decay (UN-HABITAT, 2011; Omirin et al., 2016).

The research focus on rental/tenement housing have been on the affordability, availability, delivery, overcrowding, etc. UN-HABITATA (2011) examined housing the poor in African cities. Nor et al., (2014), Nahrin & Rahman, (2015), Omirin, et al., (2016), Nnametu & Emoh, (2020), Abubakar and Ohadugha, (2021) x-rayed the supply of rental housing. This research examines rental housing challenges faced by residents in Sapele LGA, in Delta State. The study looks at challenges relating to availability, affordability, accessibility to home and neighbourhood facilities and overcrowding. The work will contribute to the existing pool of knowledge on rental/tenement housing problems faced by tenants residing in the urban areas in the sub-Saharan African.

Literature Review

Legally, rental housing is simply a property held by someone other than the tenant or a legal entity for which the tenant pays a monthly rent to the owner (Dübel, 2023). The ownership and administration of residential rental property investment can be undertaken by a variety of entities. Rental housing has been largely ignored by developing nation's national housing policy, which has concentrated almost entirely on encouraging house ownership by individuals (UN-HABITAT, nd). Consequently, rental housing has been relegated, with few governments in developing nations enacting policies to assist in the development or regulation of this type of housing occupancy. Okuzu (2017) opinioned that delivery of rental housing can either be formal or informal. Formal delivery is planned and designed to scale and is produced either by private enterprise on a commercial scale, or by government through direct participation in the supply of low-income rental housing and construction. On the other hand, informal delivery is chaotic and without plan, with persons either renting out a part of the houses they occupy or for those that can afford one, offer it as an investment property for rent.

Determinants of Rental/Tenement Housing Problems

Rental/Tenement Housing Availability

Rental housing is defined as property that is owned by a person other than the resident and for which the resident pays recurring rent to the owner (Peppercorn & Claude, 2013). While tenement housing is a house that is divided into multiple-single family living spaces (single rooms) forming separate residence but the share common housing facilities such as water source, kitchen, bathroom and toilet (Taraszkiewicz et al., 2021). Rental housing available has to do with a unit of space that is accessible to rentals rent. Rental available is measured in terms of time (duration to access desired vacant rental space) and perception on the difficulty. Gilbert (2012) concluded that the lack of explicit strategy for rental housing provision is a void in the housing policy in most developing countries and Efa (2019) observed that the regulation of rental housing is not emphasised by the governing bodies, the reason for which, house owners have been empowered to increase the cost of rental housing at any time. Deliberately to boost their profit regardless of the interest, income level and whether the renter affords or not.

In Nor et al., (2014), and Stone (2006), rental affordability is defined as an indicator of the challenges faced by households in balancing the cost of housing and non-housing expenditures against income limitations placed upon the household Tenant's affordability is defined as 30% of income received and used towards rental payment (Chaplin, & Freeman, 1999; Fiscelli, 2005; Kutty, 2005). The origin of under 30% threshold to be expensed on housing can be traced to the late 1800s and it hinges on an old aphorism that one should devote "a week's wages to a month's rent", based on studies of what typical families spent on housing (Pelletiere, 2008).

Enisan (2017) affirmed that the cost of accommodation compared to the income of the residents of Ikeja is not proportional as 40% of their salary is spent on accommodation, which exceeds the

acceptable standard of 30% by 10%. The findings of Enisan (2017) showed that housing in Ikeja was unaffordable. On the issue of affordability, Hilber and Schoni (2022) argued that, irrespective of the uncomplicatedness of the 30% standard, it should be used as standard of evaluating affordability of rental housing. Therefore, if housing accounts for too large a share of income there will not be adequate left over for other basic necessities. This approach is not without precedence: it employs the same logic that underlies the poverty threshold, which is based on the idea that after the family's income-tax, the cost of a minimum food basket should account for one-third of the take-home income.

Oruwari (1992) in Sanni et al., (2015) dealt with the issue of the increasing housing affordability challenges facing low-income households in Port Harcourt. The findings showed that it is more attractive economically for the private sector developers to provide apartment buildings (i.e., blocks of flats), which cannot be afforded by low-income households than single room tenement housing that overwhelmingly constitute the bulk of low-income housing. Thus, whilst the demand for lower income housing was on the increase, the actual low-income housing supply within the formal housing market was on the decrease within the study period in Port Harcourt. Consequently, the resultant escalating pressure on low-income housing increased the occupancy ratio per room, encouraged overcrowding and exacerbated housing affordability problems within low-income housing.

The finding of Oruwari (1992) is substantiated by e earlier scholars like Okewole and Aribigbola (2006) and Aribigbola (2008) who examined the rising problem of affordability and its disadvantageous effects on the growth of a sustainable built environment in Akure. According to the report, a substantial number of households have challenges with housing affordability. Using the spending to income ratio of 30% as a guideline, they evaluated that around 57% of city

inhabitants had rental housing affordability issues. The report advocated for legislative actions and interventions that would benefit low-income individuals.

Onyike (2007) used a different approach to examine the affordability of rental housing for basic occupier housing for public servants in Owerri, Nigeria. He established that in January 2007, only public officials at level 13 and above in the federal civil service and those at level 16 and above in the state civil service could afford to rent cheapest bungalow in Owerri at a 6% rate under the existing 17-point compensation system. He determined that without considerable aid, the ordinary city public servant could not afford the acceptable rental accommodation. This goes to establish that comparing the income earned and income spent on renal/tenement housing, most civil service employees are faced with rental housing problem.

Ndubueze (2009) carried out research on the urban housing affordability in Nigeria. From the findings in the research, it was observed that there exists very high level of housing affordability problems in Nigeria with 3 out of 5 urban dwellers facing such difficulties. The research further observed that there was a significant difference in housing problems between social class, economic groups, tenure groups and states in Nigeria. It was observed that the current national housing policy that distresses government participation in housing provision has made the country to struggle in the bid of attaining the full potential for tackling its serious housing affordability difficulties to be realised and, hence, the laudable 'housing for all' goal of the policy has remained elusive.

The study of rental housing affordability by Aribigbola (2011) in Akure found that that a sizable number of city dwellers have housing affordability challenges, particularly in terms of home and environmental quality the majority of residents spent between ₦500 and ₦1,000 on housing per month. Although a very tiny percentage of residents pay more than ₦10,000 per month on housing.

Additional housing related cost incurred by most residents include electricity, water, sanitation, and, in certain locations, night guard, cleaning communal spaces, and garbage disposal. The above shows a huge rental housing cost burden borne by renters in the city.

Nnametu and Emoh (2020) also investigated rental affordability by staff of tertiary institutions in Owerri, Nigeria. It was observed from the study that irrespective of the grade level of staff, their expenditure on rental housing was high. This depicts the unaffordability of rental housing units among staff in the tertiary institutions in Owerri, particularly those in the lower grade level.

Access to decent and affordable housing has been suggested to be one of the most unnerving challenges in contemporary times in many countries. Housing choice is not only influenced by housing preferences, but also the nature and condition of the road to the house, housing constraints, and imbalance in the housing market (Molin and Timmermans, 2003). Nahrin and Rahman (2015) showed that proximity to bus stop was the most important criterion for the tenants followed by the condition of the front road, distance to the major road, the width of the front road, distance to the market and distance to the CBD.

Access to neighborhood facilities also influences the choice of housing. Locational attribute of rental housing, distance to the Central Business District (CBD), workplace and other land use accessibility significantly affect housing prices. Accessibility variables define the ease with which local amenities can be reached from the property (Utpal & Vitsosie, 2017). Curtis and Montgomery (2006) explained that a household's decision to move or stay in a current home is influenced by a range of factors such as access to quality schools. Zondag and Pieters (2005) and Jun and Morrow-Jones (2011) concluded that both accessibility and neighbourhood amenities are significant in residential mobility and housing location choice behaviour. Oladapo et al. (2019) in their research on the factors influencing the choice of tenants in picking a residential location in

Minna, employed the use of principal component analysis in ordering the factors according to prominence. It was found that the second most influential component that influences rentals' choice was accessibility to neighbourhood facilities such as primary and secondary schools.

The level of crime in the neighbourhood will determine if the tenants will continue to be a resident in the stated neighbourhood. Most residents in these high crime neighbourhood would have relocated out of the neighbourhood but are constrained by low finance. Popoola et al., (2015) employed the use of Pearson's moment correlation to determine the relationship between environmental quality and rent value. The result showed that the quality of the environment accounted for 23% of the variation in rent in the study area. It is imperative that their attention be focused on the environment through the routine maintenance of the house, infrastructural provision and renovation for the attainment of a qualitative and sustainable environment. Ubani et al. (2017) use a variety of push and pull factors that contain environmental connotations to explain the housing decisions of households in Port Harcourt Metropolis, Nigeria. They found that the highly ranked push factors include high levels of crime and insecurity. Highly ranked pull factors are found in the new destination's security, household's change in the level of income, and home ownership status in a new destination.

Household crowding occurs when the number of people exceeds the capacity of the available living space, whether measured in rooms, bedrooms, or floor area, resulting in negative physical and mental health impacts. Enisan (2017) emphasised that the high cost of accommodation is the main cause of overcrowding (46.15%) and this is due to the low wages earned by the residents. The need for rental housing accommodations that enhance housing privacy will be preferred by tenants.

The common findings from these various researchers that employed different methods in their investigations of tenement issues in each of the various states is that residents, particularly the low-income earners are faced with the challenge of tenement housing availability, affordability, poor accessibility to residence and neighbourhood facilities, poor environmental conditions and overcrowding. All these problems are predicated upon the central issues of low-income. Higher income earners can afford a decent rental/ tenement housing in good environment even though that there is scarcity and attracts high rent. Moreso, the formal sectors that provides rental housing tend to focus on the rental-housing needs of the high-income earners, thereby compounding rental housing availability and affordability for low-income earners.

Most of the studies carried out on the rental/tenement housing challenges tend to focus on major capital cities such as Ikeja (Enisanm 2017), Akure (Okewole & Aribigbola 2006; Aribigbola, 2008), Portharcourt (Ubani et al., 2017) etc. Towns have tended to be neglected perhaps because of the perceived low scarcity of rental/tenement housing on account of their moderate population. The gap in knowledge that this study filled, is the exposition of challenges faced by renters in towns in Sapele LGA in Delta State, Nigeria.

Study Area

Sapele has been the centre for sawmilling activities since 1925 and was founded during the colonial period on area historically occupied by the Urhobo and Isoko people. Sapele is a seaside settlement located on the southern fringe of one of the Ethiope River's navigable tributaries (Edeki et al., 2023). It is divided between urban and rural regions, the most notable urbanised communities include Amu Ogodo, Amukpe, Gana, Ogbeyiyi, Olympia, etc. Sapele LGA is bounded between Latitude 50 55' 30"N, Longitude 50 30' 0"E and Latitude 50 43' 30"N, Longitude

50 48' 0" E with an average elevation of 49 feet and delimited on the North by Ethiope West LGA, on the East by Okpe LGA, on the south by Warri south LGA, and on the north by Warri North LGA. Sapele LGA is located on the Benin River, around the place where the Benin and Jamieson Rivers meet. With the Ethiope River running through the area, the average temperature in the LGA is set at 25 degrees Celsius. The total precipitation in the study area is predicted to be 3050 mm each year. See Figure 1 for the map of the study area.

The population of study area is about 174,273 in 2006 (National Population Census, 2006) and it was projected to 262,942 in 2021. According to the State Employment and Expenditure for Results (SEEFOR) (2014), the average household size of residents in Sapele LGA is 7 members larger percentage (43%) of the residents' household size comprises 6-8 members, while 2% of the respondents comprise of above 11 members.

One of the primary economic activities in Sapele LGA is timber marketing. This is evident by the fact that a lumber market is held in the region on a daily basis. The wood sector provides a significant portion of the local population's income (some as harvesters, producers, transporters, and marketers). Sapele is also a port city with the needed port infrastructure, although the port is currently not functional. The major occupations of the residents of Sapele are mainly secondary and tertiary which is typical for an urban settlement. The residents are mainly engaged in trading, shopkeeping, employed individuals (civil servants and private employees), farmers, and artisans, self-employed and daily labourers.

The housing situation in Sapele LGA is that of a typical urban centre. The demand for quality housing exceeds it supply. Sapele LGA has more residents who are living in rented housing unit than those who own their houses. This is evident in the findings of SEEFOR 2014 in which 58.3% for the respondents were tenants, 33% were house owners and 7% were living in a rent-free

apartment which are owned by relatives or are family houses. Majority of the houses are constructed from cement blocks, roofs are made of corrugated aluminium zinc sheet, and floors are made of cement, and have water closet facilities.

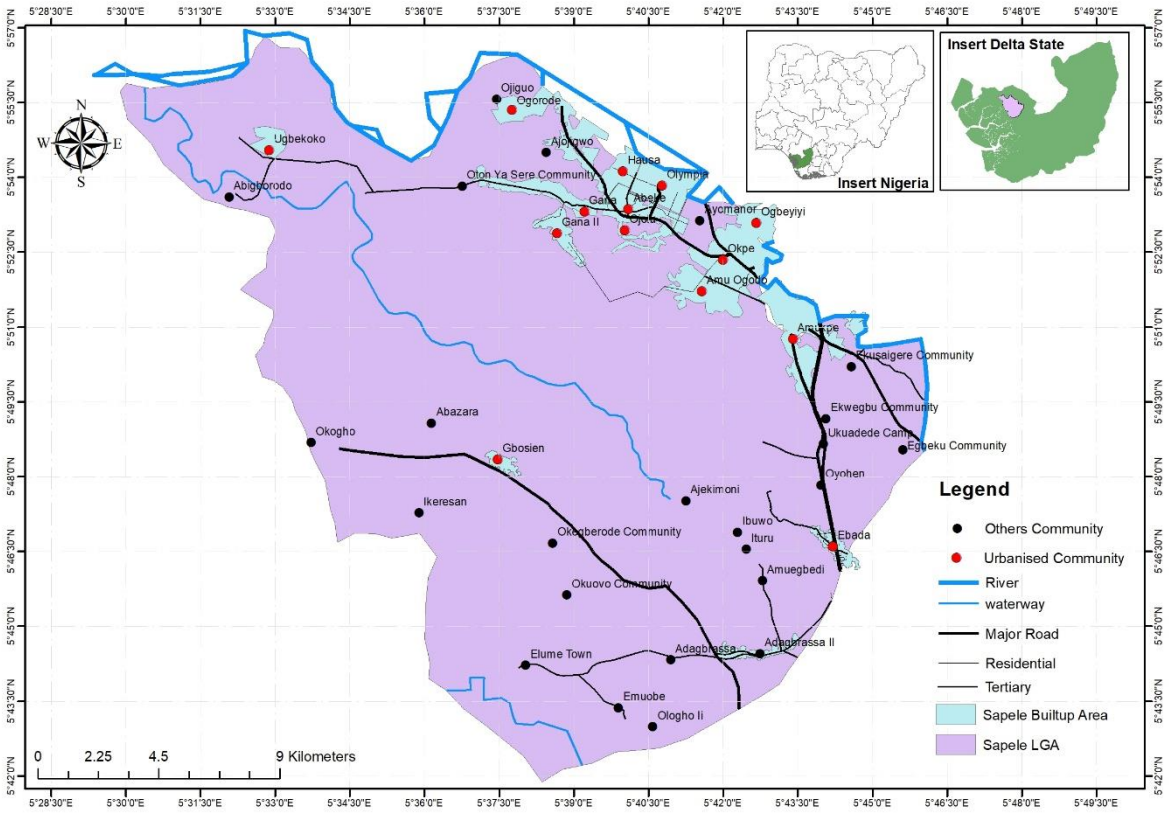


Figure 1: Sapele Local Government Area Showing the Sampled Neighbourhood

Source: Gadm (2020), Google Earth Map (2021), Modified by Author.

Materials and Methods

Data collection was done between 2020 and 2021. Data were generated through the distribution of questionnaire and the Global Positioning System (GPS) was used for coordinates readings of the streets in which the questionnaire were distributed and was complemented by secondary sources. The urbanised areas of the study area are made up of fourteen communities

(neighbourhoods) and thus, make up the area of study (see figure 1 for communities in the built-up areas and see Table 1 for selected communities).

Using Krejcie and Morgan (1970), a total of 384 questionnaires were distributed to household heads who were tenants in the various neighbourhoods that made up the study area and 339 questionnaires were returned. Questionnaires were distributed amongst the neighbourhood based on its size and the spatial extent of urbanised activities. Areas that had higher evidence of urbanised activities were apportioned more questionnaires because these areas are densely populated whereas areas with less evidence of urbanised activities were apportioned lesser questionnaires because these areas were sparsely populated. The study population were tenants who are household heads that resides in the urbanised areas of Sapele LGA and the focus is on rental and tenement housings. The questionnaires were distributed using systematic sampling technique in each of the selected neighbourhood. A street in the neighbourhood was randomly selected and, on that street, the first house was selected and every second house from the selected house was selected to participate in the survey. In all, a total of 35 streets were selected (see Table 1). If it was observed that the selected house had no tenants in them, the next house will be selected to replace the previous house. This is repeated until the houses on that street is sampled and then, a street is skipped and the next street selected. This systematic process is replicated until the allotted questionnaires to that neighbourhood are exhausted.

Table 1: Sample Size Distribution of Questionnaire

Community/Neighbourhood	Selected Number of Streets	Questionnaire Distributed	Questionnaire Returned
Olympia	4	25	22
Ojolu	2	15	11
Gbosien	1	5	5
Ogbeyiyi	4	30	22
Amu ogodo	5	65	63
Gana	5	35	23
Amukpe	5	50	48
Okpe	4	35	33
Ugbekoko	2	15	11
Ebada	1	5	5
Ogorode	2	20	12
Gana II	2	20	20
Abeke	4	32	32
Hausa	4	32	32
Total	35	384	339

Source: Authors' Fieldwork

The framework for affordability for this study is defined as 30% of income earned and used for rent payment, while the framework for accessibility is defined as the ease to reach a rental housing unit and it is measured by the condition of the road. Individuals that spend more than 30% of their earning on rental housing are considered to have housing problem and housing to them are unaffordable. While individuals that resides in a location where the road condition is very bad are considered to have rental housing problems due to poor accessibility.

Results and Discussion

Rental/Tenement Hosing Availability

The availability of urban rental housing is a very vital component in addressing the issues of urban sustainability and livability. Adequate provision of affordable rental housing addresses the issue of urban housing deficit and meets up with the growing need for housing in the urban space. Two

variables (difficulty to get vacancy and time duration to get vacancy) were used as a proxy to measure the rental housing availability. If more people responded to the option that it is difficult to find a rental accommodation, then the interpretation is that rental accommodation is not available. A cross-tabulation of difficulty to get a vacancy and the duration it takes is shown in Table 2.

Table 2: Crosstabulation of Difficulty and Time Duration to Get Vacancy

Difficulty to get Vacancy	Time Duration to get Vacancy										Total	
	No Response and %		< 1 Month		1-3 Months		3-6 Months		> 6 Months			
No Response	5	29.4%	0		3	1.8%	0		0		8	2.4%
Very Easy	1	5.9%	6	5.7%	4	2.4%	2	5.6%	0		13	3.8%
Easy	1	5.9%	22	23%	22	13.3%	3	8.3%	2	12.5%	50	14.7%
Neutral	2	11.8%	37	35.2%	32	19.4%	8	22.2%	1	6.3%	80	23.6%
Difficult	7	41.2%	22	23%	74	48.9%	15	41.7%	5	31.3%	123	36.3%
Very Difficult	1	5.9%	18	17.1%	30	18.2%	8	22.2%	8	50%	65	19.2%
Total	17	5%	105	31%	165	48.7%	36	10.6%	16	4.7%	339	100%

Source: Authors' Fieldwork

From Table 2, what this means is that '48.2% of respondents who used 1-3 months to find rental accommodation deemed or viewed the search process to be difficult. Hence, we can assume that rental accommodation may be unavailable due to the difficulty and the longer duration it takes as opined by half of the respondents. This finding is in consonance with the claims of Kingsley (2017) that rental accommodations are not readily available. The difficulty to get vacancy domiciliates on these facts: that Sapele LGA was a colonial town and is a fast-growing city which seems to be experiencing high influx of migrants and high fertility rates.

Rental/Tenement Rent Affordability

Rent affordability is a very pivotal factor when addressing rental housing challenges. According to Herbert, Hermann and McCue (2018) 30% of earnings is popularly used and is an acceptable measure of the extent of housing affordability; any person that spends more than 30% of his income on rent is having housing problem. In the study area, the mean pricing of rent is ₦12, 697.12k ($31.46). Table 3 shows the frequency and percentage of respondents who spent more than 30% (highlighted in red) of their monthly income on rental housing pricing in the study area. From Table 3, it can be seen that 9.4% of the respondents earned less than ₦10000 ($21.72) and from the category, 22.1% (n=5) do not have housing affordability problem. 20.4% of the respondents earned ₦10001-₦30000 ($21.71-$65.15) and from this category, 16% (n=7) did not have affordability as a housing problem and 27.3% of the respondents earned ₦30000-₦50000 ($65.15-108.58) and from this category only 74.5% (n=50) did not have affordability as a housing problem.18.4% respondents earned ₦50001-₦70000 ($108.58-$152.01). 24.5% of the respondents earned above ₦70000 ($152.01) and from this category, non-had housing affordability as a problem. Due to the earnings of the low-income earners, the rent for rental housing is unaffordable in the study area. Outside paying high cost for rent, tenants are responsible for paying their utility bills and also for security (local civil defense). This finding is in line with what has been established by earlier researchers such as (Okewole & Aribigbola, 2006; Onyike, 2007; Aribigbola, 2011; Kingsley, 2017; Efa, 2019).

Generally, 164 (67%) of the respondents which comprised of the categories that earned above the minimum wage (₦30000) did not have housing affordability problem while 81 (33%) respondents, which was largely made of the categories that earned the minimum wage and below were having rental housing affordability as a problem.

Table 3: Crosstabulation of Price for Rent and Salary of Respondents

									> 70000			
1000	0	0	0	0	6	9%	0	0	0	0	6	100%
1500	0	0	0	0	0	0	4	8.9	2	3.3%	6	100%
1600	0	0	1	2%	3	4.5%	0	0	0	0	4	100%
1700	0	0	0	0	0	0	2	4.4	0	0	2	100%
1800	0	0	0	0	0	0	0	0	2	3.3%	2	100%
2000	2	8.7%	2	4%	5	7.5%	6	13.6	2	3.3%	17	100%
2500	0	0	0	0	2	3%	0	0	1	1.7%	3	100%
2750	0	0	0	0	0	0	1	2.2	0	0	1	100%
2900	0	0	0	0	0	0	1	2.2	0	0	1	100%
3000	3	13.4%	0	0	2	3%	0	0	0	0	5	100%
4000	0		0	0	3	4.5%	0	0	0	0	3	100%
5000	5	21.7%	1	2%	6	9%	4	8.9	0	0	16	100%
6000	1	4.5%	4	8%	0	0	0	0	1	1.7%	10	100%
7000	0	0	5	10%	0	0	0	0	2	3.3%	7	100%
8000	1	4.5%	0	0	5	7.5%	0	0	0	0	6	100%
9000	0	0	1	2%	2	3%	1	2.2	0	0	4	100%
10000	4	17.4%	2	4%	0	0	4	8.9	0	0	17	100%
11000	0	0	4	8%	0	0	0	0	0	0	4	100%
12000	2	8.7%	6	12%	1	1.5%	1	2.2	7	11.7%	17	100%
12500	0	0	0	0	0	0	4	8.9	0	0	4	100%
13000	1	4.5%	4	8%	0	0	0	0	0	0	5	100%
14000	0	0	0	0	1	1.5%	0	0	0	0	1	100%
14600	0	0	0	0	2	3%	0	0	0	0	2	100%
15000	1	4.5%	4	8%	0	0	9	20	11	18.3	35	100%
16700	0	0	1	2%	0	0	0	0	0	0	1	100%
17000	0	0	2	4%	0	0	0	0	2	3.3%	4	100%
17500	0	0	0	0	0	0	0	0	1	1.7%	1	100%
18000	0	0	2	4%	4	6%	1	2.2	6	10%	13	100%
20000	0	0	1	2%	2	3%	2	4.4	4	6.7%	9	100%
21000	0	0	0	0	0	0	0	0	2	3.3%	2	100%
22000	2	8.7%	0	0	0	0	0	0	0	0	2	100%
25000	0	0	5	10%	3	4.5%	1	2.2	14	23.3%	23	100%
30000	1	4.5%	1	2%	3	4.5%	0	0	2	3.3%	7	100%
35000	0	0	1	2%	0	0	0	0	0	0	1	100%
40000	0	0	1	2%	0	0	0	0	0	0	1	100%
50000	0	0	2	4%	10	15%	0	0	0	0	2	100%
76000	0	0	0	0	7	10.5%	4	9%	1	1.7%	1	100%
Total	23	100%	50	100%	67	100%	45	100%	60	100%	245	100%

KEY:Green: Respondents who pay ≤30% of salary for rent, Red: who Pay ≥30% of salary for rent

Accessibility of Rental/Tenement Housing Location

Accessibility is the ease to reach a certain facility and there are diverse measures to accessibility of which, road condition is a factor. The condition of the roads linking these rental housing units is used as a proxy to assess accessibility. A crosstabulation of road condition and the level of impediment it has on the easy access to these rental houses is shown in Table 3.

Table 3: Cross-tabulation of Road Condition and Level of Impediment

Road Condition	Level of Impediment to Rental Housing Unit								Total	
	No Impediment and %		Minor Impediment and %		Moderate Impediment and %		Major Impediment and %			
Very bad	0		29	29.3%	1	0.8%	8	10.1%	38	11.2%
Bad	2	5.9%	34	34.3%	10	7.9%	9	11.4%	55	16.2%
Neutral	5	14.7%	16	16.2%	36	28.5%	15	19%	72	21.2%
Good	9	26.5%	9	9.1%	48	37.8%	32	40.5%	98	29%
Very good	18	52.9%	11	11.1%	32	252%	15	19%	76	22.4
Total	34	10%	99	29.2%	127	37.5%	79	23.3%	339	100%

Source: Authors' Fieldwork

From Table 3, it was observed that the majority (29%) of the respondents opined that the condition of the road leading to their rental housing unit were good and 22.4% of the respondents were of the view that the road condition was very good. While 16.2% and 11.2% of the respondents maintained that the road condition is bad and very bad respectively. Although a majority held that the road condition is good, a larger proportion (37.5%) also reacted that the road condition poses a moderate impediment to the accessibility of their rental housing unit, while 23.3% and 24.7% were of the opinion that road condition poses major and no impediment in accessing their rental housing unit respectively. A total of 79 (23.3%) of the respondents held that there is major impediment to their rental housing unit and 40.5% of the 79 respondents responded that the road condition is good. The cause of the major impediment is as a result of flooding experienced by the tenants during the rainy reasons. This serves as a major impediment in accessing their rental units.

To ensure that this distribution did not occur by chance, Pearson's chi-square was used to ascertain whether there is a statistically significant relationship between road condition and the level of impediment to rental residential housing unit. The idea behind this was to ascertain if the condition of the road was acting as an obstruction to the ease at which tenants reach their rented homes. Using the concept of transferability, which is a requirement in the theory of spatial interaction, mobility must be supported by transport infrastructures such as roads, implying that the origin and the destination must be linked. The condition of the linkage (road) is also a factor as cost of mobility tends is influenced by it. The frictional cost must not be higher than the benefits of the related interaction, even if there are complementarity and no alternative opportunity. Researchers have opined that good road aid easy commuting of people to their place of residence, work, and the development of their lands and industries (Ojukwu, 2000; Van de Walle, 2002; Omirin et al., 2016; Naazie et al., 2018). Thus, a null hypothesis is stated "there is no statistically significant relationship between road condition and level of impediment to rental housing unit". The chi-square table is shown in Table 4.

Table 4: Chi-Square Table

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	120.337[a]	12	.000
Likelihood Ratio	122.789	12	.000
N of Valid Cases	339		

Source: Authors' Fieldwork

From Table 4, it is observed that the Pearson chi-square value is 120.337 and p-value (0.000) with an alpha value (0.05). Since the p-value is smaller than the alpha value, the null hypothesis is rejected. That is, there is a statistically significant relationship between the road condition and level of impediment to rental housing unit. So in essence, road condition is likely to influence level accessibility to rental's place of residence.

The chi-square only show that there is a significant difference, but does not account for the extent of the association. The Cramer's V is introduced to determine the strength of the difference between road condition and the level of impediment. See Table 5.

Table 5: Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.596	.000
	Cramer's V	.344	.000
N of Valid Cases		339	

Source: Authors' Fieldwork

From Table 5 it can be observed that value of Cramer's V value (0.344), which implies that there is a weak association between road condition and level of impediment to rental housing unit in Sapele LGA.

Accessibility to Community Facilities from the Tenement Housing Location

To urban geographers and planners, accessibility to public/community facilities such as schools, hospitals, police and fire service stations, religious centres, market, etc. are of priority. Because the low level of accessibility to neighbourhood facility could be a problem faced by residents, there is the need to determine the perception of the respondents towards their perceived level of accessibility to community/neighbourhood in the study area. In other to determine how accessible the facilities are from the respective rental housing units; the mean of the responses was determined. See Table 6.

Table 6: Level of Accessibility to Neighbourhood Facilities

Level of Accessibility	Frequency	Percentage
Highly Accessible	77	22.7
Accessible	83	24.5
Moderately Accessible	84	24.8
Less Accessible	62	18.3
Not Accessible	33	9.7
Total	339	100.0

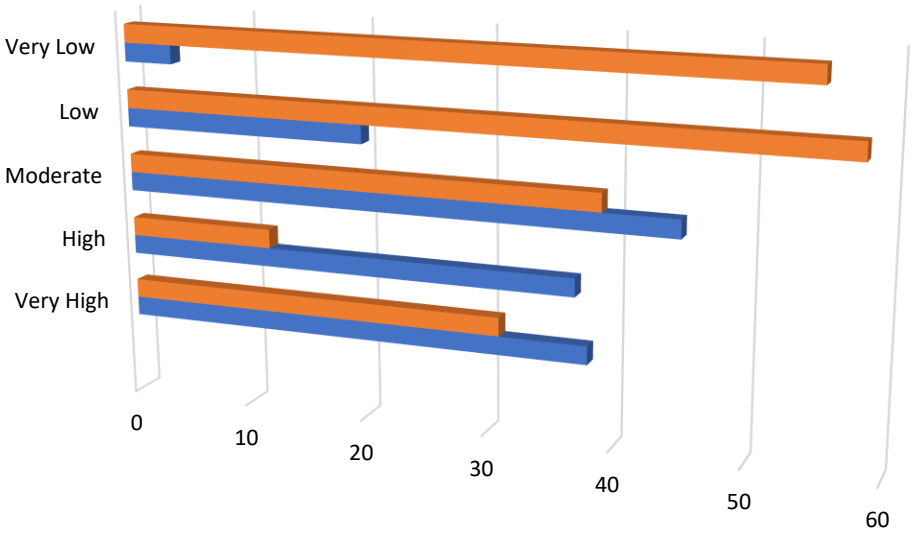
Source: Authors' Fieldwork

From Table 6, it could be observed that 24.8% (n=84) responded that the neighbourhood facility in the neighbourhood is moderately accessible while 9.7 (m=33) responded that the facility in the neighbourhood is not accessible to them. This shows that community facilities in the study area are moderately accessible. This is due to the spatial extent of the study area and the condition of the road. This implies that accessibility to neighbourhood facilities such as schools, health centres, and markets is a factor that determines rentals' choice of residential location. The study areas' attribute of moderate accessibility to neighbourhood facility likely has influenced the location of rental accommodation in the study area.

Environmental Conditions of Rental Housing Units in the Neighbourhood

The environmental condition of the neighbourhood and the rental housing unit is of core importance as it impacts on the health of the people and the aesthetic appeal of the neighbourhood. The studied neighbourhoods' susceptibility to flooding, indiscriminate waste disposal, and frequency of crime were used as the variables to measure the environmental condition of the neighbourhoods. These variables data will be shown in Figure 2, 3, and 4 respectively.

From the Figure 2, it is seen that the majority, (57.5%) of the respondents are of the view that the neighbourhood is not flooded. From the percentage of people that responded that their neighbourhood is prone to flooding, majority responded that the level of flooding in the study area is moderate (31.3%), 26.4% and 25.7% responded that their neighbourhood is very highly flooded and highly flooded respectively. While 2.8% and 13.9% responded that they have experienced very low and low flooding respectively.



		Very High	High	Moderate	Low	Very Low
No		31	12	39	58	55
Yes		38	37	45	20	4

Figure 2: Flooding Challenges and its Levels in the Sapele LGA

Source: Authors' Fieldwork

From Figure 3, 51% (n=173) were of the opinion that they were been faced with the challenges of indiscriminate waste disposal in the study area and majority, (49.7%) of these respondents perceived this act as a major problem and 23.7 % and 26% saw it as moderate and minor challenge respectively. Most of these neighbourhood that experienced these uncontrolled waste disposals were found close and in central business district of the study area.

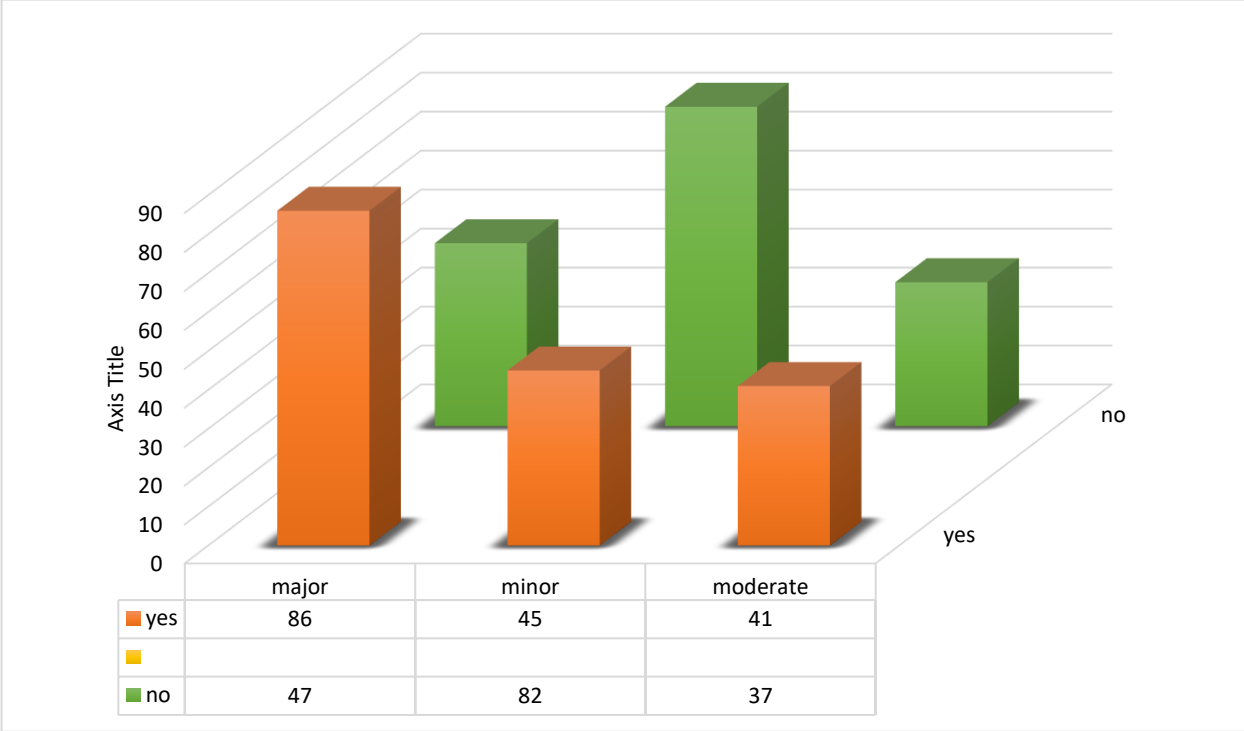


Figure 3: Waste Disposal Challenges and its Levels in the Sapele LGA

Source: Authors' Fieldwork

Majority (42.6%) of the respondents were of the opinion that crime sometimes occurs in the neighbourhood and 40.5% opined that the crime rarely occurs in their neighbourhood. Only 4.1% and 6.7% of the respondents opined that crime often and always happens in their neighbourhood. On the overview, crime in the study area in generally low.

Assessing the environmental condition of the study area, it is obvious that the area relatively livable due to its low presence of flooding and crime but aesthetically, it is not very beautiful due to patches of waste deposit scattered around the neighbourhood, particularly in the Central Business District. This finding is similar to what was observed by Abubakar and Ohadugha (2021)

that areas with low crime rate and susceptibility to flooding are appealing and attracts prospective residents.

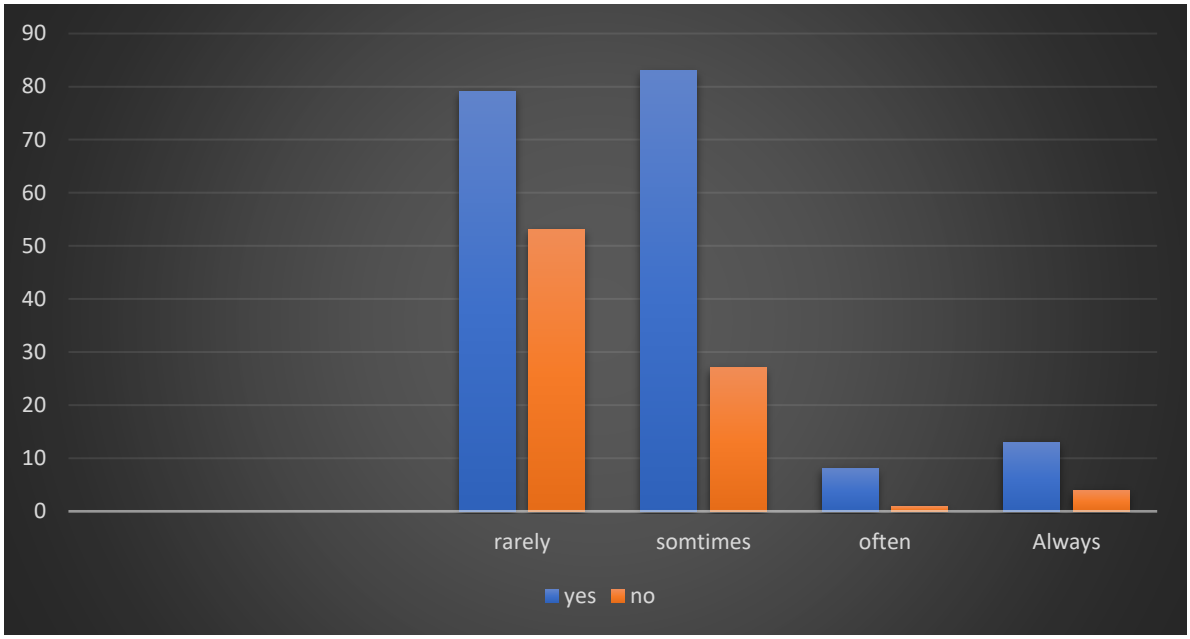


Figure 4: Crime Occurrence Challenges and its Frequency in the Sapele LGA

Source: Authors' Fieldwork

Overcrowding and Privacy

Overcrowding together with the lack of privacy is a common housing problem evident in urban areas. The maximum occupancy ratio, which is 3 people per room was used as a standard to measure overcrowding and privacy was measured based on perception of the respondents. The median responses to the number of persons per room in Table 7 was used to determine the average number of persons in a room. The null hypothesis "there is no significant difference between number of persons per and level of privacy in the study area" will be tested using chi-square (see Table 8) and Cramer's V (see Table 9) to ascertain the extent of its association.

Table 7: Statistics of Number of Persons per Room

N	Valid	337
	Missing	2
Mean	2.4659	
Median	2.0000	
Std. Deviation	1.26286	
Minimum	1.00	
Maximum	5.00	

Source: Authors' Fieldwork

Using the median (2 persons per room), it is observable that the study area is not faced by overcrowding challenges.

Table 8: Crosstabulation between Number of Persons per Room and Level of Privacy

Persons Per Room	Level of Privacy					Total
	Very High	High	Moderate	Low	No Privacy	
1 Person	54	22	3	0	1	80
2 Persons	22	57	29	11	10	129
3 Persons	12	12	16	4	12	56
4 Persons	0	7	4	19	5	35
≥ 5 Persons	0	0	3	12	22	37
Total	88	98	55	46	50	337

Source: Authors' Fieldwork

Table 8 is showing the cross tabulation of the number of persons per room and the level of privacy in the study area.

Table 9: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	255.7827[a]	20	.000
Likelihood Ratio	245.717	20	.000
N of Valid Cases	337		

Source: Authors' Fieldwork

From the Table 9, it is observed that the Pearson chi-square value is 255.7827 and p-value (0.000) with an alpha value (0.05). Since the p-value is smaller than the alpha value, the null hypothesis is rejected and alternate hypothesis accepted that states that, there is a statistically significant association between the number of persons per room and level of privacy in a rental housing unit.

Table 10: Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	.871	.000
	Cramer's V	.436	.000
N of Valid Cases		337	

Source: Authors' Fieldwork

From Table 10, it can be observed that value of Cramer's V value (0.436), this implies that there is a medium relationship between numbers of persons per room and level of privacy in rental housing unit in Sapele LGA.

Agreement Rating of the Influence of Tenement Housing Problems

To determine if there is some level of agreement in tenement housing challenges in the study area, the Kendall coefficient of concordance was employed to validate the degree of agreement by these respondents and to highlight the most prominent tenement housing challenge. The respondents were asked to rank the severity of their rental housing problem. The study postulated that there is

no agreement amongst the respondents on the challenges faced by tenants in the study area. See Table 11 for the mean ranks of tenement housing challenges.

Table 11: Mean Ranking of Tenement Housing Problem in Order of Severity

Tenement Housing Challenges	Mean Rank
Lack of Electricity	3.07
Availability of Rental/Tenement Housing	5.68
Lack of Dustbin	5.69
Price for Rent	5.77
Occurrence of Flooding	6.26
Occurrence of Crime	6.30
Physical Quality of the House	6.42
Lack of Open Space	6.50
Lack of Vehicular Access	6.65
Lack of Privacy	6.66
Lack of Bathroom and Toilet	7.01

Source: Author's Fieldwork

In Table 11, the severity in the tenement housing challenges is arrayed in an ascending order. It is observed that there is some degree of agreement with the previously established challenges (availability of rental/tenement housing, waste disposal, price of rent, etc.) and non-challenges (privacy, bathroom and toilet, etc.) faced by the tenants in the study area.

In order to determine the level of agreement amongst the respondents, Kendall's W was employed to test if the agreement occurred by chance or if it is statistically significant, chi-square statistics was computed and it is shown in Table 12.

Table 12: Test Statistics

N	323
Kendall's W[a]	.129
Chi-Square	417.265
Df	10
Asymp. Sig.	.000

Source: Authors Fieldwork

From Table 12, it is observed that one respondent did not respond to the question and of such there is a short fall in the N value (323). The Kendall's W value (0.129) revealed that there is a low level of agreement amongst the respondents and this might be as a result of variation in tenement housing problem in the eleven neighbourhoods. Chi-square value is 417.265 and p-value (0.000) with an alpha value (0.05). Since the p-value is smaller than the alpha value, the null hypothesis is rejected and alternate hypothesis accepted that states that, there is a statistically significant agreement amongst respondents as regards the rental/tenement housing challenges in Sapele LGA. This test is relevant to the study in order to determine the most pressing rental housing problems that the residences are faced with and having a common agreement between respondents will help proffer solutions to these problems by attending to the most severe problems and it will be relevant for planning and policy making purposes.

Conclusion

This research work has investigated the challenges (availability of rental housing, accessibility of rental housing location and neighbourhood facilities, environmental condition, and overcrowding) of rental/tenement housing residents in Sapele LGA. From the data collected and analyses carried out, it was concluded that there exists problems of urban rental housing availability, affordability, and uncontrolled waste disposal. The challenges of accessibility, overcrowding, and privacy were not visible in the study area. Although the level of agreement amongst the respondents was low, it did not occur by chance as the level of agreement was statistically significant.

It is recommended that legislative actions and interventions should be put in place in the form of policies that will protect tenants from undue and insensible increase of rents by private landlords. Government should be involved in the provision of low-income housing units for the people. The government should ensure that the municipal waste disposal agencies that are tasked to dispose

waste in the neighbourhood is up and doing in their duties and in the construction of roads and drainages system to channel erosion and should be embarked on the respective strata of government.

References

Abubakar, J. N. and Ohadugha, C. B. (2021). Impact of tenement housing quality on social relationship of occupants in Minna, Niger State, Nigeria. http://repository.futminna.edu.ng:8080/jspui/handle/123456789/11192

Adeoye, D. O. (2016). Challenges of urban housing qualities: Insight and experiences of Akure, Nigeria. *Social and Behavioural Sciences*, 216, 260-268

Agbaje, G.I., Bello, I. E., and Ojo, A. G (2017). Empirical assessment of the role of geospatial techonology in delivery governance and strengthening democracy in Nigeria. *GeoJournal*), 83 (331) 1-14 https://doi.org/10.1007/s10708-017-9797-4

Ahemed, B. W., Ahemed, A. Z., Belel, A. and Abubakar, M. A. (2019). The implication of urbanisation on housing conditions in Gwagwalada Town, Abuja, Nigeria. *Journal of Technology Management and Business*. 6 (2) (page numbers???)

Anacker, K. B. (2019) Introduction: housing affordability and affordable housing, International *Journal of Housing Policy*, 19 (1), 1-16, DOI: 10.1080/19491247.2018.1560544

Ansah, J. K. O. and Addai, M. (2013). Coping with life in a squatter settlement: the case of migrant women in Kumasi, Ghana Dept of Planning, KNUST, Kumasi; © 2013 Kwame Nkrumah University of Science and Technology (KNUST); *Journal of Science and Technology*. 33 (3) 73-88. http://dx.doi.org/10.4314/just.v33i3.8

Aribigbola, A. (2008). Housing policy formulation in developing countries: Evidence of programme implementation from Akure, Ondo State, Nigeria". *Journal of Human Ecology*, 23 (2); 125-34.

Asian Development Bank. (2013). India: Promoting inclusive urban development in Indian Cities. A technical assistance consultant report. For ministry of housing and urban poverty alleviation.

Bergenstrahle, S. (2016). The importance of affordable rental housing. https://www.iut.nu/wp-contents/uploads/2019/02/SB_The_importance_of_affordable_rental_housing-2017.pdf&ved=2ahUKEwjHkoGj8973AhU4gP0HHbqfCe04HhAWegQIDBAB&usg=AOvVa0uzCKXMo9yybePnqGkUtki

Bouillon, C. P. (Ed.). (2012). *Un espacio para el desarrollo: Los mercados de vivienda en America Latina y el Caribe*. Inter-American Development Bank.

Canadian Mortgage and Housing Corporation. (2014). Housing in Canada Online: definitions of variables.

Chaplin, R., & Freeman, A. (1999). Towards an Accurate Description of Affordability. Urban Studies, 36(11), 1949-1957.

Chen, J. (2022). Residential S. *Ivestopedia.* https://www.investopedia.com/terms/r/residentialrentalproperty.asp

Chi, P. S., and Laquatra, J. (1998). Profiles of housing cost burden in the United States. *Family and Economics Issues*, 19(2), 175-193.

Curtis, C. & Montgomery, M. (2006). *Housing Mobility and Location Choice: A Review of the Literature.* Working Paper, Curtin University of Technology, Australia. Available at: http://urbanet.curtin.ed.au/

Drew, R. B. (2018). Current trends in the U.S. housing market, in K. B. Anacker, A. T. Carswell, S. D. Kirby, and K. R. Tremblay (Eds.) *Introduction to housing*, pp. 3–20. Athens, GA: University of Georgia Press.

Dübel, H-J. (2023). Rental housing. *Housing Financial International Network*. http://hofinet.org/themes/theme.aspx?id=59#63 Accessed 20/20/2023

Edeki, P. E., Isah, E. C. and Mokogwu, N. (2023). Self-Reported Assessment of Sources and Quality of Drinking Water: A Case Study of Sapele Local Government Area, Delta State, Nigeria. *Journal of Community Medicine & Primary Health Care*, 35(1), 100–111. https://doi.org/10.4314/jcmphc.v35i1.9

Edohen, P. O. and Ighedosa, K. I. (2020). An assessment of out migration on the socio-economic livelihood of farm households in Nigeria. The case Ovia-South West LGA. Edo State. *Maidugri Journal of Art and Social Sciences.* 20, 1-15. ISSN: 0189-9716

Efa, T. D. (2019). Urban housing politics: Dynamics, challenges and coping mechanisms of urban housing problems in Sebeta Town. *Journal of Human Resource Management.* 7 (4). 93-98. doi: 10.11648/j.jhrm.20190704.13

Enisan, G. (2017). Effect of accommodation pressure on housing affordability in Ikeja, Lagos, Nigeria. *FUTY Journal of the Environment*. 11(1) 64-75

Eurostat. (2014.) Glossary: Overcrowding rate.

Evans, G. (2003). The built environment and mental health. *Journal of Urban Health* 80(4):536–555. [PMC free article] [PubMed]

Fiscelli, C. (2005). New Approaches to Affordable Housing: Overview of the Housing Affordability Problem Los Angeles: Reason Foundation Policy Study.

Gardner, D., Lockwood, K., and Pienaar, J. (2020). Nigeria's housing construction and housing rental activities. Housing and the economy. *Centre for affordable housing finance in Africa.*

Gardner, D., Lockwood, K., and Pienaar, J. (2020). Nigeria's housing construction and housing rental activities: Cost benchmarking and impact on the economy. Centre for Affordable Housing and Finance in Africa (CAHF). http://housingfinanceafrica.org/app/uploads/Nigera-HEVC-layout-11-Agust-2020-1.pdf

Gilbert, A. (2012). Private rental landlords. Developing countries. International Encyclopedia of Housing and Home. 381-386. 10.1016/B978-0-08-047163-1.00463-X.

Gilbert, A. (2015). Rental housing: The international experience *Habitat International* 54 (2016) 173- 181. http://dx.doi.org/10.1016/j.habitatint.2015.11.025

Gove, W. R., Hughes, M., Galle, O. R. (1983). *Overcrowding in the household: An analysis of determinants and effects*. New York and London: Academic Press

Graziano da Silva, J. (2017). UN forum spotlights cities, where struggle for sustainability will be won or lost. SDG Media: Clean water update from GlobalGoalsUN on Vimeo. UN Newsletter. https://www.un.org/sustaunabledevelopment/blog/2018/07/un-fproun-struggle-sustainability-will-won-lost

Herbert, C., Hermann, A., and McCue, D. (2018). Measuring housing affordability: Assessing the 30 percent of income standard.

Herbert, C., Hermann, A., and McCue, D. (2018). Measuring housing affordability: assessing the 30 percent of income standard. *Joint Centre for Housing Studies*.

Hilber, C.A.L. and Schöni, O. (2022). Housing policy and affordable housing. Centre for Economic Performance, Occasional Paper No. 56

Jibunoh, N. (2009). *The State of Lagos Housing Market.* Published by Roland Igbinoba Real Foundation for Housing and Urban Development (RIRFHUD)

Joint Center for Housing Studies of Harvard University. (2013). America's rental housing: Evolving markets and needs. Cambridge, MA: Joint Center for Housing Studies of Harvard University.

Jun, H. & Morrow-Jones, H.A. (2011). Residential Density and Location Decisions: The Factors affecting Homeowners' Choice of Denser Neighbourhoods. *Housing and Society*, 38(2), pp.117-142.

Kingsley, G. T. (2017). Trends in housing problems and federal housing assistance. Metropolitan Housing And Communities Policy Center. *Urban Institutes*. Available at: https://www.urban.org/sites/default/files/publication/94146/trends-in-housing-problems-and-federal-housing-assistance.pdf

Krejcie and Morgan (1970). Determining sample size for research activities. *Educational and Psychological Measurement.* 30, 607-610

Kuddus, M. A., Tynan, E. and McBryde, E. (2020). Urbanization: a problem for the rich and the poor? *Public Health Rev*. 41 (1) 1-4. https://doi.org/10.1186/s40985-019-0116-0

Kutty, N. K. (2005). A New Measure of Housing Affordability: Estimates and Analytical Results. *Housing Policy Debate* 16(1), 113 - 141.

Lawal, K. (2019). Assessment of the Challenges Facing Rental Housing in Lagos, Nigeria. Available at SSRN: http://dx.doi.org/10.2139/ssrn.3500132

Makindle, O. O. (2014). Housing delivery system, need and demand, environment, development and sustainability. *Journal of Technology Management and Business.* 16 (1) 49-69

Manzoor, H. and Iram, I. (2018). Urbanisation concepts, dimensions and factors. *Int J. Recent Sci. Res.* 9 (1) 23513-23523. DOI: http//dx.doi.org/10.24327/ijrsr.2018.0901.1483

McGranahan, G. and Satterthwaite, D. (2014). *Urbanisation concepts and trends.* IIED Working Paper. IIED, London. ISBN 978-1-78431-063-9 http://pubs.iied.org/10709IIED

Michael E. Stone (2006) What is housing affordability? the case for the residual income approach, housing policy debate. *Routledge Taylor and Francis.* 17(1), 51-184, DOI: 10.1080/10511482.2006.9521564.

Ministry of Housing and Urban Poverty Alleviation. (2015). National Urban Rental Housing Policy (Draft)

Molin, E. and Timmermans, H. (2003). *Accessibility considerations in residential choice decisions: Accumulated evidence from the Benelux.* Proceeding of Annual Transportation Research Board Meeting, Committee on Transportation and Development, Washington D.C.

Naazie, A. N., Braimah, S. R., and Atindana, V. A. (2018). The effects of bad roads on transportation system in the Gushegu District of Northern Region of Ghana. *American Scientific Research Journal for Engineering, Technology, and Sciences (ASRJETS).* 40 (1) 168-185.

Nahrin, K. and Rahman. M. S. (2015). Transport accessibility of housing: perspectives of house rental and the tenants' housing choice. *Journal of Bangladesh Institute of Planners*. 8, pp. 73-83. ISSN 2075-9363

Ndubueze, O. J. (2009). Urban housing affordability and housing policy dilemma in Nigeria. A thesis submitted to the university of Birmingham, centre for urban and regional studies, school of public policy for a degree of doctor of philosophy.

New Zealand Ministry of Health (2014). Analysis of household crowding based on Census 2013 data. Wellington: New Zealand Ministry of Health

Nnametu, J. N. and Emoh, F.I. (2020). An evaluation of rental housing affordability by staff of tertiary institutions in Owerri, Imo State, Nigeria. *Current Urban Studies*, 8, 1-23. https://doi.org/10.4236/cus.2020.81001

Nor'Aini, S., Nor'Aini, Y., Noraini, J., and Yuhainis, T. (2014). Identifying variables influencing tenant affordability to pay rent in Ipoh City Council Public Housing. *E3S Web of Conferences 3.* DOI: 10.1051/e3sconf/20140301006 Available at http://www.e3s-conferences.org

Nubi, T. O. (2008). Affordable housing delivery in Nigeria. *The South African Foundation International Conference and Exhibition. Cape Town*, October, pp. 1-18.

Okuzu, B. (2017). Rental Housing: Addressing the challenges of delivery in Nigeria. *International Union of Housing Finance.* The Quarterly Journal of the International Union for Housing Finance. Pp. 34-36.

Ojukwu, C. (2000). Economic analysis and prioritization of feeder road rehabilitation: Incorporating vehicle operating costs, passenger time and producer surplus transport costs savings the case of South-western Uganda. Economic Research Paper No. 54, African Development Bank.

Okewole, I. A., and Aribigbola, A. (2006). Innovations and sustainability in housing policy conception and implementation in Nigeria. In: I. A Okewole, A. Ajayi, A Daramola, K Odusanmi, O Ogunba (Eds.): *The Built Environment: Innovation Policy and Sustainable Development. Ota, Ogun State, Nigeria*: Covenant University, pp. 414 – 420.

Okolie, A. M. (2001). *A critical assessment of urban housing programme in Nigeria. Issues in urbanisation and urbanadministration in Nigeria.* An unpublished masters thesis presented in partial fulfilment for the award of degree in Masters of Science in the Department of Political Science, University of Nigeria, Nsukka

Oladapo, R.A., Ojo, B., Ayoola, A.B. & Kemiki, O.A. (2019). Factors influencing tenants' choice of location of residence in Bosso Local Municipality, Minna, Nigeria. *Journal of African Real Estate Research,* 4(1), pp.23-41. DOI: 10.15641/jarer.v4i1.662.

Oladimeji, L. A. (2021). Social welfare and access to housing among the middle and low-income earners in Nigeria: A review of framework for housing delivery. *Public Policy and Administration Research*. 11 (1) 90-97. DOI: 10.7176/PPAR/11-1-08

Omirin, J. O., Falola, O. and Amune, G. (2007). Housing Rental housing. In T. Agbola, L. Egunjobi, and C.O. Olatubara (Eds), *Housing development and management* 2nd edition (pp. 559-629). Ibadan, Nigeria: Geography and Regional Planning, Faculty of Social Sciences, University of Ibadan.

Omirin, J. O., Falola, O. and Amune, G. (2016). Rental housing. In T. Agbola, L. Egunjobi and C.O. Olatubara (Eds.), *Housing development and management*. A book of readings, 2nd

Edition, (pp 599-629). Ibadan, Nigeria: Department of Urban and Regional Planning, Faculty of the Social Sciences, University of Ibadan. ISBN: 978-978-54736-0-5

Omole, K. F. (2010). An assessment of housing condition and socio-economic lifestyle of slum dwellers in Akure, Nigeria. *Journal of contemporary management research* 6 (4), 272-290

Onyike, J. A. (2007). An assessment of the affordability of public housing by public servants in Owerri, Nigeria. *Journal of Land Use and Development Studies*, 3(1), 21-34.

Oruwari, J. (1992b). In, housing the urban poor in Nigeria: A reflection of low-income provision by Architect Mrs. Oruwari University of Port Harcourt Student Portal.

Pelletiere, D. (2008). *Getting to the heart of housing's fundamental question: how much can a family afford? a primer on housing affordability standards in us housing policy.* Washington, D.C.: National Low Income Housing Coalition.

Peppercorn, I. G., and Claude, T. (2013). *Rental Housing: Lessons from International Experience and Policies for Emerging Markets*. Directions in Development. Washington, DC: World Bank. doi:10.1596/978-0-8213-9655-1.

Popoola, N. I., Jinadu, M. A., Liman, H. S. and Abd'Razack, N. T. A. (2015). Effect of environmental quality on property rental values in peri-urban neighbourhoods of Minna, Nigeria. *ATBU Journal of Environmental Technology.* 8(2) 42-51.

Potts, D. (2009). The slowing of sub-Saharan Africa's urbanisation: evidence and implications for urban livelihoods. *Environ. Urban.* 21, 253–259 doi:10.1177/0956247809103026

Rilwani, M. L. and Bello, I. E. (2020). Holistic approach to development of smart urban cities and emerging challenges: Appraisal of some initiatives in Nigeria. *AAU journal of Environmental Studies.* 5 (2) 1-22. ISSN: 2354-2519

Ruonavaara, H. (2018). Theory of housing, from housing, about housing, housing, theory and society. *Routledge Taylor and Francis Group.* 35(2), 178-192, DOI: 10.1080/14036096.2017.1347103

Sani, K. S. and Gbadegesin, J. T. (2015). A study of private rental housing market in Kaduna Metropolis, Nigeria. *Journal of Resources Development and Management.* 11 pp 1-11. ISSN 2422-8397www.iiste.org

Sani, K. S. and Gbadegesin, J. T. (2015). A study of private rental housing market in Kaduna Metropolis, Nigeria. *International Journal of Humanities and Social Science* 5(8). 173-183.

Sanni, K. S., and Gbadegesin, J. T. (2015). A study of private rental housing market in Kaduna Metropolis, Nigeria. *International Journal of Humanities and Social Science*. 5 (8) 173-183

Sawhill, I. (2018). *The forgotten Americans: An economic agenda for a divided nation*. New Haven: Yale University Press.

Smithsonian American Art Museum (na). *Tenement life.* Available at: https://americanexperience.si.edu/wp-content/uploads/2013/11/Tenement-Life_.pdf

State Employment and Expenditure For Results (SEEFOR) (2014). Final report of the environmental and social management plan (ESMP) for road rehabilitation project in Warri Metropolis, Delta State

Taraszkiewicz, A.; Grebowski, K.; Taraszkiewicz, K.; Przewlócki, J. (2021). Medieval Bourgeois Tenement Houses as an Archetype for Contemporary Architectural and Construction Solutions: The Example of Historic Downtown Gdansk. *Buildings* 2021, 11, 80. https://doi.org/10.3390/ buildings11030080

Ubani, P., Alaci, D.S.A. & Udoo, V. (2017). Determinants of residential neighbourhood choice in a Nigerian Metropolis. *IOSR Journal of Humanities and Social Science,* 22(7), pp.1-11.

UNHABITAT (2011). *Housing the poor in African Cities. Rental housing: A much neglected housing option for the poor.* Nairobi, Kenya. ISBN Number (Series): 978-92-1-131926-2. https://www.researchgate.net/publication/236974439

UN-HABITAT, (nd). A policy guide to rental housing in developing countries. *Quick Policy Guide Series* - 1. https://unhabitat.org/sites/default/files/documents/2019-07/policy_guide_to_rental_housing_in_developing_countries.pdf

United Nations (2008). *World urbanisation prospects: the 2007 revision,* CD-ROM edition New York, NY: United Nations Department of Economic and Social Affairs, Population Division

United Nations (UN). (2018). Population revision of World's urbanisation prospects. https://www.un.org/developmet/des/en/news/population/2018-revision-of-world-urbanization-prospect.html Accessed 09-05-2022

Utpal, K. D., and Vitsosie, V., (2017). Location and neighbourhood conditions for housing choice and its rental value: Empirical examination in an urban area of North-East India. *International Journal of Housing Markets and Analysis*, https://doi.org/10.1108/IJHMA-10-2016-0072

Van de Walle, D. (2002). Choosing rural road investment to help reduce poverty. *World Development*, 30(4), pp. 575 – 589.

Watson, D. P. (2018). The housing first technical assistance and training (HFTAT) implementation strategy: Outcomes from a mixed methods study of three programs. *Substance abuse treatment, prevention, and policy*, 13(1), 1-13.

White, M. J., Muhidin, S., Andrzejewski, C., Tagoe, E., Knight, R., and Reed, H. (2008). Urbanization and fertility: an event-history analysis of coastal Ghana. *Demography*, 45(4), 803–816. https://doi.org/10.1353/dem.0.0035

Wilson, W. (2014). Overcrowded housing (England). London: House of Commons Library.

Wirth, L. (1938). Urbanism as a way of life. *The American Journal of Sociology*. 44 (1) 1-24

World Economic Forum (2017). Migration and its impact on cities. Available at: https://www3.weforum.org/docs/Migration_Impact_Cities_report_2017_low.pdf

Yakubu, I., Akaateba, M. A., and Akambang, B. A. (2014). A study of housing conditions and characteristics in Tamale Metropolitan area, Ghana. *Habitat International*, 44, 394-402

Zondag, B. and Pieters, M. (2005). Influence of accessibility on residential location choice. Paper submitted for presentation at the 84th annual meeting of the Transportation Research Board, January 2005, Washington and for publication in the Transportation Research Record