

# Analysis of Housing Rent Dynamics in Ibadan North Local Government, Oyo State, Nigeria

U. U. Jimoh<sup>1</sup> and A. S. Famewo<sup>1</sup>

<sup>1</sup>Department of Urban and Regional Planning, University of Ibadan, Nigeria

*The scale of the housing challenge in sub-Saharan Africa is alarming, with a great gap in its demand and supply along with variations in its quality and quantitative measures. While studies have focused on the various aspects of housing, that which centred on rent vis-a-vis trend has not been given adequate attention in the literature. This study, therefore, analysed the housing rent dynamics in Ibadan North Local Government Area (LGA), Oyo State Nigeria. Rent-gap theory provided an anchor for the study while survey research design was adopted. Both primary and secondary data were sourced. A purposive multistage sampling technique was used in selecting Ibadan North Local Government Area. The choice of Ibadan North was premised on being the urban local government and the seat of administration in Oyo State. The total number (76740) of regular housing stock in Ibadan North LGAs, which was extracted from the National Population Priority Table for Housing and Social Amenities in the 2006 Population and Housing Census and the World Population Data Sheet, 1991, which contains the population per wards for Ibadan North was determined. A structured questionnaire was administered to 380 (0.5%) respondents taken proportionally across all the existing wards. Other information was elicited from six identified estate agents domiciled in the study area. Variables that were considered included socio-economic characteristics, housing type, rental price, factors influencing changes in rental price and rental trends. Data were analysed using both descriptive and inferential (multiple regression and trend analysis) statistics. The study revealed that male-headed households and renters are the dominant population, as they accounted for 55% of the respondents in the study area. About 28.9%, which is the highest income distribution, earned between ₦10,000 – ₦30,000 monthly. There is a significant relationship between rental price and housing and neighbourhood/locational factors ( $F= 211.298$ ). The trend revealed persistent increases in rental prices over time largely influenced by the socio-economic characteristics of residents, quality of housing, inflation and cost of rehabilitation. This study concludes that there is a positive relationship between rent patterns over time and across space and the socio-economic characteristics and housing characteristics of residents. Therefore, the housing supply should be effectively addressed by giving cognisance to rental housing and urban development.*

**Keywords:** Rental dynamics; rental price; rental trends; housing structure; Ibadan North

## Introduction

Housing is a residential environment that includes the physical structure that man uses for shelter and all necessary services, facilities, equipment and devices necessary or desired for the physical and mental health and social well-being of the family and individual (World Health Organization, 1976; Almusaed, 2018). Housing as a process encompasses all socially accepted ways by which man acquires a territory for his home, the procedures by which he retains the territory, the price he pays for it and the manner in which the

stock of houses is maintained and enlarged. Housing is both an economic and social process that eventually yields an economic and physical product. Hence, it will be largely influenced by huge capital outlay.

Housing finance has been considered to be the most important factor in housing production (United Nations Center for Human Settlement, 1996). This view is also supported by the United Nations Human Settlement Programme UN-HABITAT (2005, 2021), which posited that sustainable housing production would depend

largely on adequate finance, amongst other factors. This is especially true for the urban and rural low and middle-income earners. Hence, the rental market offers in urban residences vary based on their socio-economic status and affordability, which can effectively mitigate urban housing deficiencies both in quantity and quality. More pointedly, rental market dynamics focuses on the demand and supply of rental housing and its peculiarities and can be used to explain the factors influencing trends in rental prices over time.

Many third-world cities in developing countries have been experiencing rapid urbanisation in the last five decades and the number of urban dwellers is expected to double in these cities by 2030, with a projected 3% growth rate (UN-HABITAT, 2009; United Nations, 2015). Ibadan, as one of the largest indigenous cities in tropical Africa, began as a war camp in 1829 and has experienced both traditional and colonial urbanisation; the city has grown both spatially and demographically. The consequences of this growth are evident in a number of negative housing externalities such as inadequate housing, homelessness, the proliferation of squatter and squalor, illegality, housing informality, and security of tenure, amongst many others.

The pooled effect of this high population upsurge and urbanisation has thrown Ibadan into the serious problem of housing shortages not only in quantitative terms, but also in qualitative terms with its corresponding weight on the people. The effect is even more pronounced among the low-income earners who constitute the majority in Ibadan and do not have access to existing housing stock. Considering the national housing policy that charged all civil servants to invest 25.0% of their monthly income on housing, it is critical (*ThisDay*, May 2022). Also, with the high cost of materials and the increase in the cost of labour, the construction rate has become slow, making the housing market unstable. Given these factors coupled with the current minimum wage issue, it may be difficult to own a house. Thus, the available option is to rent some apartments to live. Since the construction materials keep increasing, with other variables of development, the rent gap between the rich and the poor is expected to continue to widen.

Meanwhile, studies, such that relate to housing abound. For instance, Briggs and Ng (2009) studied

trends in housing prices in New Zealand and asserted that household income is a strong determinant of house rent. Olayiwola *et al.* (2014) studied factors influencing spatial variation in residential land value determinants in major areas of Metropolitan Lagos, and found that infrastructural facilities and economic factors were highly correlated and strongly account for factors influencing variation in residential land uses in Metropolitan Lagos. In a similar vein, Appau *et al.* (2014) assessed factors influencing rental values in WA Municipality in Ghana and discovered that renters' access to facilities is the dominant factor influencing rental values in WA Municipality. Despite all these focuses on housing and rental-related issues, there is still a dearth of an empirical investigation on rental housing in Sub-Saharan Africa and, much more importantly, on indigenous cities such as Ibadan, which is the largest indigenous city in Tropical Africa and has undergone rapid urbanisation in the last five decades. This study, therefore, is designed to analyse the trends in rental housing markets in Ibadan North over time with a view of providing the missing gap that ensures equilibrium of rental housing demand and supply in the short run and long run for all categories of residents and renters. In order to achieve this, the following objectives are set;

- i. Examine the socio-economic characteristics of the respondents in the study area.
- ii. Investigate the characteristics of residential structures in the study area.
- iii. Analyse the trends in housing structure over time.
- iv. Investigate the Factors influencing rental housing dynamics in the study area.
- v. Examine the relationship between rental price and housing structure, neighbourhood and locational factors

### **The study area**

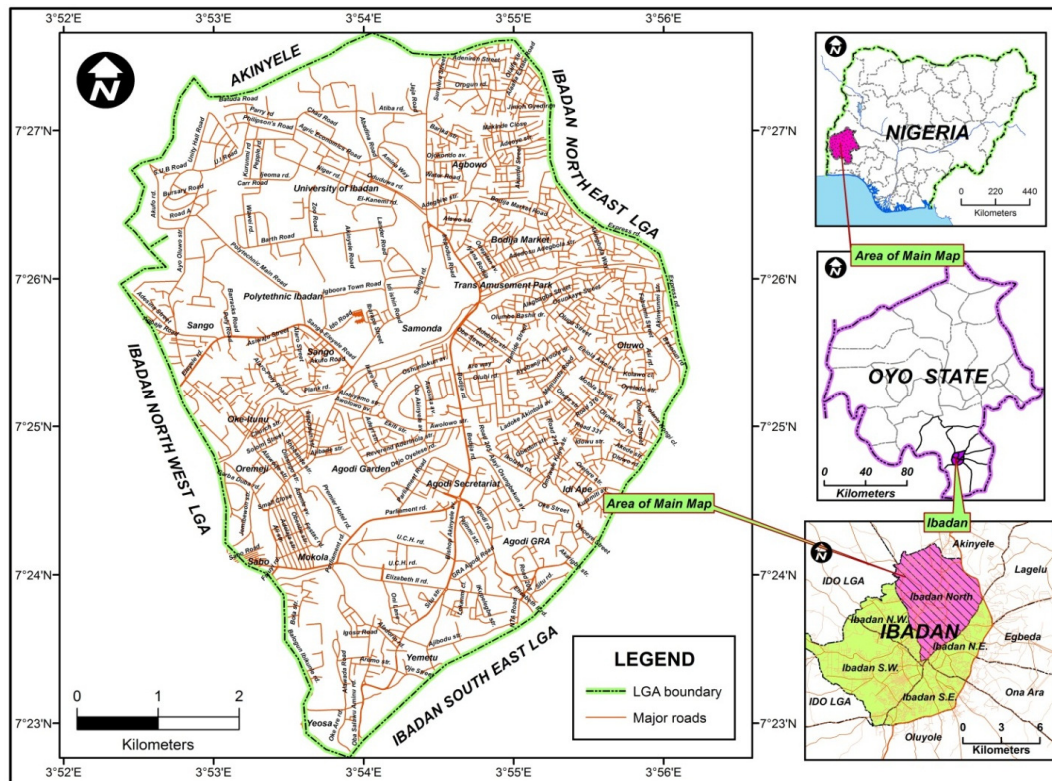
Ibadan is the capital city of Oyo State. It is located on Longitude 2° 50' to about 3° 20' and Latitude 7° 20' to about 7° 50' N. It is the third largest metropolitan area in Nigeria, after Lagos and Kano. By population, it has about 1338,659 (NPC 2006 Census).

Ibadan North was carved out of the defunct Ibadan Municipal Local Government. It came into

existence on 27th September, 1991. The headquarters of Ibadan North is located at Agodi Gate. It has a spatial extent between latitude 7°23' and 7°27'N and longitude 3°52' and 3°56'E. It is bounded in the West by Ido and Ibadan North West Local Governments, bounded in the East by Lagelu, Egbeda and Ibadan South East Local Government, respectively. It is also bounded in the North by Akinyele Local Government.

The Ibadan North Local Government secretariat is situated at Agodi-Gate Ibadan, opposite the Oyo State Government House, Ibadan. Ibadan North Local Government has twelve wards and forty-one localities. Population as of 1991 (NPC) stood at 302,271; as of the 2006 NPC Census, we have 306,795. The area extent as of 1991 is 163km<sup>2</sup> and by 2006, it has extended to about 420km<sup>2</sup>. (oyostate.gov.ng). This clearly shows that the metropolitan area as a whole is

experiencing urban sprawl. It is a multi-ethnic and heterogeneous society, largely dominated by the indigene, the Yoruba, the Igbo, who are mainly involved in commerce, The Fulani and Hausa, who are found mainly in the Sabo Area. Also, the Ibadan metropolis is divided into three residential densities based on the existing demographic considerations. The densities are low-density residential market, which comprises high rental areas where people with high income are and taste concentrate. The area is characterised by people of less than 100 persons per hectare. The medium-density residential is dominated by middle-income earners. The area has a population of 100-3000 persons per hectare, while the high-density residential area is preoccupied with the low-income earner groups, which have the capacity to accommodate more than 300 persons per hectare (Adegoke, 2022).



**Fig1.1:** Map Showing Ibadan North Local Government Area  
**Source:** Cartographic Department, University of Ibadan, 2016

## **Theoretical framework**

### ***Rent gap theory***

Rent gap theory is used to anchor this study. The theory is used because of its relevance in responding to the changes in land values and different housing demand and supply in a specific time or a defined market trend. The theory was first published by Neil Smith in 1979. It was ***termed potential land rent***. The main components of the theory are the notion of potential gains as established on two main constructs and they are:

- i) Market responses to the changing spatial pattern of land values
- ii) The differing market values of housing under different tenures.

The theory is more of a mental construction that reflects possible structural changes in a local urban property market in the context of society restructuring. Many contingent processes influence the perception of potential land as possible capital gains by human agents within the property market. According to Smith (1987), a gap will exist when the current rent or property value is less than the potential value of the property. The concept generally reveals the mechanism which plays an important role in the transformation of a contemporary set of structures into new ones. The explanations for the gap can either be on the demand side or on the supply side. The demand side explains the revitalisation processes that focus on changing preferences and demographic factors, which might lead to an increase in demand from high-income earners for centrally located housing (Smith, 1987). Factors for the increase include cultural factors, the maturing of the baby boom generation, and the growth of the white-collar employment sector. The supply side, on its own end, is synonymous with the gap theory.

Hence, the gap theory is a combination of a set of principles which can be conceptualised, and different outcomes of the principles can be observed in reality. Smith made a schematic attempt at explaining the historical decline of inner-city neighbourhoods through a five-stage model of decline that provides a key stage model of decline insight into the nature of capitalised rent.

The first stage, “new construction and first cycle of use”, concentration is the possible source of depreciation: advances in the productiveness of

labour style obsolescence of these processes act upon an individual structure and may involve a series of decisions made by individual homeowners. The scale of analysis is the individual structure; this is similar to the scale at which the capitalised land rent is defined. Owners can make a series of individual decisions, and they can take steps to modify the structure of slow style obsolescence or invest in the structure to remedy the results of wear and tear. Also, they could decide to neglect further investment in the structure, sell it and invest in a newer house.

Also, a situation may exist where owners want to invest in the structure but lack the necessary capital. The decision the owner would take is not purely an individual decision, as housing market factors prevailing in the neighbourhood will strongly influence the owners’ decisions. Hence, at the end of the first cycle, the scale of analysis changes from individual to neighbourhood.

The four remaining stages talk about the processes of blockbusting, redlining and abandonment. Redlining is the most explicit, as it defines the process of decline at the neighbourhood level by literally defining the neighbourhood where decline will continue to occur. The effect could be that financial institutions will obstruct the flow of capital necessary to maintain the value of the structures by refusing to approve loans to a specific area because of the social and economic characteristics of the area. This theory has contributed to social reformation and to the concept of gentrification. Urban centres can be largely influenced by trends in housing processes and a development in housing services provision will positively impact urban development. The theory applies to the study in the area of financial value (rent), which arise both on the demand for different types of housing unit (bungalows, flats and duplexes) and on the supply side as a result of predetermined factors. The reason for this is that housing rent is not static. It keeps changing in response to the market value of factors involved in housing construction.

## **Literature review**

### ***Socio-economic and residential characteristics***

Ruivo (2010) examined the determinants of rental rates in major American cities. He found out that cities with higher incomes are associated with

higher rental rates; this shows that there is a positive relationship between rental rates and income. This study further proved that a positive relationship exists between housing costs and population densities which relates to increasing rates, and is corroborated by a study by Falayi (2017) on the determinants of demand for rental accommodation in Ibadan.

Sumila *et al.* (2012) examined the living conditions, rents in rental housing in slums and determinants of rents in the slums of Nairobi and Dakar. Using multiple regressions for their analysis, they found that rents in the two cities correlate with the same factors: rents increase with unit size and quality. Rents are higher for units with electricity and reasonable access to toilets. It was found that in Dakar, neighbourhood factors such as public schools and owners' perceived safety of their neighbourhood have a positive impact on perceived home value. However, the study by the Private Residential Sector (PRS) (2022) on housing conditions which was carried out in England, was found to have a worst-case condition characterised by a rising cost of living.

In the work of Pierre (2014) on urban land and property value in Rwanda, neighbourhood quality, electrical connection and lighting, and environmental amenities such as flush toilets, and pit latrines with or without slabs are all positively related to housing prices. These amenities increase with their availability in urban properties.

Also, Julius Ajiboye (2013) found that in his study in Akure city, two infrastructural facilities are the determinants of rental property: wall fence and burglary proof. This means that renters will be ready to pay more provided these two facilities are provided.

### ***Trends in rental housing and rental prices***

Mueller (1999) defines rental trends as a consistent pattern or change in the general direction of the property market, which is based on facts gathered over time, causing a noticeable (statistical) pattern of change. It is important to note that trends can take different forms; it can be vertical or horizontal or downward or upward. However, this will depend on the series of identified related changes and projected into a plausible feature.

Briggs and Ng (2009) carried out a study on trends and cycles in New Zealand house prices; they aimed to identify the determinants of house

values and also study the trend level of house prices. Findings from their study indicate that household income is a strong determinant of house rent while other factors contributing to this include interest rates and tax paid on properties.

Similarly, Idudu (1989) and Omuojune (1994) investigated trends in rental values in Nigeria and found that urban rents in the country over the past two decades have been positive and forward in movement. While similar studies carried out in Kaduna between 1986 and 2004 reveal that inflation is responsible for the observed variation in house rent over time, this was found to be statistically significant amongst these areas (Nwuba, 2004). Ahir and Liagani (2020) averred that, on average, across countries, house prices have been on an upward trend for a very long time following a long period of the year. The rising trend in prices reflects a demand boost due to greater availability of housing finance running up against supply constraints, as land has increasingly become a fixed factor for many reasons.

Significantly, rental trends strongly influence urban development planning as they reveal the factors responsible for variation in rental prices and allow urban developers to create models for forecasting and projecting future trends. However, there have been relatively few studies in this area over time.

### ***Factors influencing rental price***

The main attributes that can influence rental price can be categorised into four and they are structural/physical properties of the house, neighbourhood attributes, locational attributes and also macroeconomic factors or attributes (Wilhelmsson, 2000).

The age of the building will have a negative relationship with price; this was asserted by Sirman *et al.* (2005), using a hedonic model to determine variables that influence rent. They found that the age of the building influences rent in a negative direction. It is expected that as the age of houses increases, their economic value decreases and their utility level falls.

Sirmans *et al.* (2005) find that the number of rooms available affects housing price in a positive direction; as room increases, the price of the house will increase. It was found in a study in Ghana, East Legon, that having both access to a toilet and bathroom attracts high rent, while low rent was

observed for options with either one or none of the two facilities. The level of facilities enjoyed by renters determines the price they pay, if renters get their desired facilities, they will be willing to pay more for it than they will for a facility less desired.

Brigham (1965) asserts that the material used for construction affects the price to pay for the structure. The satisfaction to be derived will be affected by physical factors such as the quality of the roof, ceilings, plastering, etc. The material used for the wall is a determinant of satisfaction that can be derived.

As rightly observed by Mc Cluskey *et al.* (2000), most land developers agreed that location is the most important factor that determines rental values. When making housing and rental decisions, a lot of locational factors are always considered, some of which are, where the house is situated, access to and from the CBD, the amount to be paid for transport from the house to other areas of activities, the efficiency of the major means of transport amongst other factors.

Another factor that can influence the housing market is discrimination. Women and migrants have less ownership than other groups; however, two main sources of discrimination are ethnicity and race. Megbolugbe (1983) asserted that ethnicity is a more important factor in developing countries, unlike racial discrimination. For instance, the case of the Hausa-Fulani also being relegated to cheaper neighbourhoods in the southwest part of Nigeria in settlements referred to as “Sabo”. Economists believe that an efficient housing market is one where high-income earners pay more for better-located and well-equipped accommodation and relegate poorer tenant (low-income) earners to the background. However, those concerned for the poor felt that rental housing should provide minimum property maintained services in good locations. The government may intervene by building public housing, offering incentives to private landlords, offering subsidies for poor households, and setting rent control measures irrespective of the choice made, but there will be difficulty in its implementation.

In a study recently conducted by Ankeli (2022) on influencing factors of property use conversion and residential properties rental value trend in Ikeja, Nigeria, it was observed that about 67.0% of the use

of conversion activities in Ikeja could be explained through the fusions of the conversion factors in the predictive model with 96.0% influence on residential property rental values.

Hence, there is a need to study individual places to find the main determinants of rents in that location and also understand rental housing dynamics, trends, the nature of housing markets and factors that can influence changes in rent with a view to mitigating housing deficiencies gap in its quality and quantity for both the short term and longer time periods.

### **Research methodology**

A survey research design was adopted, while both primary and secondary data were used for this study. A purposive multistage sampling technique was used in selecting Ibadan North Local Government Area. The choice of Ibadan North was premised on being the urban local government and the seat of administration in Oyo State. The total number (76740) of regular housing stock in Ibadan North LGAs, which was extracted from the National Population Priority Table for Housing and Social Amenities in the 2006 Population and Housing Census and the World Population Data Sheet, 2006, which contains the population per wards for 2006 in Ibadan North was determined. A structured questionnaire was administered to 380 (0.5%) taken proportionally across all the existing wards (see Tables 5.2 and 5.3). Other information was elicited from the six estate agents domiciled in the study area. Variables that were considered included socio-economic and residential characteristics, trends in rental prices, factors influencing changes in rental prices and rental trends. Data were analysed using both descriptive and inferential (multiple regression and trend analysis) statistics.

**Table 5.1: Distribution of regular households by type of housing unit in Ibadan North**

Type of house	Figure
House on a separate stand	19996
Traditional structure	185
Flats in block of flats	12408
Semi-detached house	4458
Rooms/let in house	35916
Informal/improvised dwelling	237
Other	3540
Total	76740

**Source:** NPC Priority Tables for Housing and Social Amenities, Volume (II), 2006 Population and Housing Census

**Table 5.2: Population per ward in the twelve wards in Ibadan North Local Government**

Wards	Population
Ward1	17972
Ward2	17272
Ward3	61683
Ward4	35712
Ward5	39564
Ward6	19508
Ward7	14004
Ward8	29587
Ward9	10115
Ward10	71484
Ward11	47020
Ward12	36957
Total	400878

**Source:** World Population Data Sheet, 1991, Ibadan North Local Government

**Table 5.3: Distribution of questionnaire in the study area**

Localities per ward	Number of questionnaires
Beere, kannike, Agbadagudu, Oke Are, Ode oye	17
Oniyanrin, Inalende, Odeole, Oke Oloro	16
Adeoyo, Yemetu, Oke Aremo, Isale Alfa	59
Ituaba, Idi Omo, Oje, Igosun, Kube, Oko Apon	34
Bashorun, Oluwo, Ashi, Akingbola, Ikolaba, and Gate	38
Sabo Area	19
Oke Itunu, Oremeji, Cocacola	13
Sango, Ijokodo	28
Mokola, Ago Taapa, and Premier Hotel Area	11
Old and New Bodija, Secretariat, Awolowo, Obasa, Sanusi	68
Samonda, Polytechnic Ibadan, University of Ibadan	45
Agbowo, Bodija, Ojurin, Barika, Iso Pako, Orogun, Lagos-Ibadan expressway	32
<b>Total</b>	<b>380</b>

Source: Field work, 2016

Furthermore, two hypotheses were formulated to investigate the rental dynamics in the study area, which state that:

1. There is no significant variation in the price of rent over time and space (wards).
2. There is no significant relationship between rental price, housing structure and neighbourhood/location factors.

## Results and discussion

### *Socio-economic characteristics of residents and renters*

This section captures the socio-economic characteristics investigated in the study area (Table 6.1). The study revealed slight dominance (55%) of the males while 68.9% were married. Further investigation revealed that 54.2% of the respondents aged between 18-47 were of an active

age in the study area. Majority (82.4%) of the respondents were Yoruba. It was revealed that the majority of the respondents are married, accounting for 68.9%. Trade singlehandedly accounted for 22.9% of the distribution while other occupations accounted for 23.2%. In addition, an investigation on the income distribution of respondents revealed that low (26.8%) and middle (28.9%) income earners earned less than 10,000 and between 10,000 – 30,000 respectively. Hence, about 55.7% of the respondents earn below and about ₦30,000. The study also revealed that household sizes between 1-5 accounted for an average household size of 53.2% of the distribution. It was also revealed that 6-10 household size accounted for 33.7%, 11-15 accounted for 10.3%, while the least were 15 and above, accounting for 2.9%.



**Table 6.1: Socio-economic characteristics of residents and renters**

Socio-economic Characteristics	Frequency	Percentage
Gender		
<b>Male</b>	209	(55%)
<b>Female</b>	171	(45%)
Age category		
<b>18-27</b>	76	(20%)
<b>28-37</b>	72	(18.9%)
<b>38-47</b>	130	(34.2%)
<b>48-57</b>	61	(16.1%)
<b>58-67</b>	29	(7.6%)
<b>68 and above</b>	12	(3.2%)
Ethnicity		
<b>Yoruba</b>	313	(82.4%)
<b>Igbo</b>	47	(12.4%)
<b>Hausa</b>	15	(3.9%)
<b>Others</b>	5	(1.3%)
Marital Status		
<b>Married</b>	262	(68.9%)
<b>Single</b>	94	(24.7%)
<b>Widowed</b>	15	(3.9%)
<b>Divorced</b>	65	(1.6%)
<b>Others</b>	3	(0.8%)
Occupation		
<b>Trade</b>	87	(22.9%)
<b>Technical accounts</b>	77	(20.3%)
<b>Civil service</b>	42	(11.1%)
<b>Teaching</b>	32	(8.4%)
<b>Farming</b>	16	(4.2%)
<b>Others</b>	88	(23.2%)
Education		
<b>No formal education</b>	5	(1.3%)
<b>Primary</b>	66	(17.4%)
<b>Secondary</b>	96	(25.3%)
<b>Post-secondary education</b>	167	(43.9%)
Income		
<b>Below N10000</b>	102	(26.8%)
<b>N10000-30000</b>	110	(28.9%)
<b>N30001-N50,000</b>	67	(17.6%)
<b>N50001-N70,000</b>	49	(12.9%)
<b>N70,001-N90,000</b>	24	(6.3%)
Household Size		
<b>1-5</b>	202	(53.2%)
<b>6-10</b>	128	(33.7%)
<b>11-15</b>	39	(10.3%)
<b>Above 15</b>	11	(2.9%)

Source: Authors' Analysis, 2016

**Characteristics of residential structure in the study area**

With respect to a residential structure, the investigation revealed that more than half of the respondents (58.4%) were renters, while owners’ occupiers accounted for 15%. Family houses and institutional property accounted for 19.5% and 4.7% respectively (Table 6.2). With respect to the distance of the respondents to the workplace, it was

revealed that about 62.4% of the respondents lived within 10km of their workplace (See Table 6.2). In terms of the housing type, the Brazilian structure accounted for the largest size of the housing structure (39.2%). Squatters accounted for 1.7% and were more predominant in wards 1 (Beere, Agbadagudu etc.) and 6 (Sabo area).

**Table 6.2: Characteristics of residential structure in the study area**

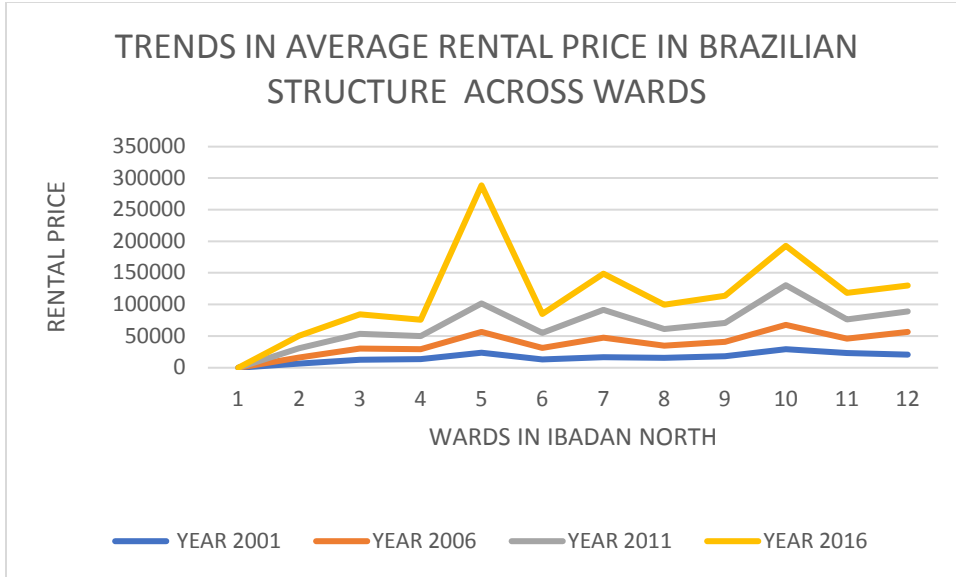
Residential structure	Frequency	Percentage
<b>Renters</b>	222	58.4%
<b>Owners Occupier</b>	57	15%
<b>Family house</b>	74	19.5%
<b>Institutional property</b>	18	4.7%
<b>Squatters</b>	7	1.7%
Distance of house to place of work		
<b>1-5km</b>	87	22.9%
<b>6-10km</b>	150	39.5%
<b>11-15km</b>	49	12.9%
<b>16-20km</b>	17	4.5%
<b>Above 20km</b>	14	3.7%
Housing type		
<b>Brazilian</b>	149	39.2%
<b>Flats</b>	84	22.1%
<b>Bungalow</b>	51	13.4%
<b>Duplex</b>	8	2.1%
<b>Others</b>	89	23.2%
<b>N</b>	380	100%

Source: Authors’ Analysis, 2016

**Trends in housing structure over time**

The seemingly non-existent rental price, as observed in Fig. 6.1 for Ward 1 is because Brazilian structure rarely exists in these areas as they are the inner traditional core of the city (Beere, Agbadagudu, Oke Aare). There was a steady increase in rental prices as one progresses out of the traditional core areas (Wards 1-4) while Wards 5, 7 and 10 revealed significant increases in the rental prices in urban centres within the period under

consideration (See Fig. 6.1). The study also revealed an increase in the demand for Brazilian structures in Ward 10. Notably, these areas have a duality of income residential centres, the high and relatively medium income areas, for instance, Old Bodija and New Bodija, Samonda and Aerodrome Estate, University of Ibadan and Agbowo environs. Field observations showed distinct housing structures and economic activities that exist between the duality of income areas within nuclei.

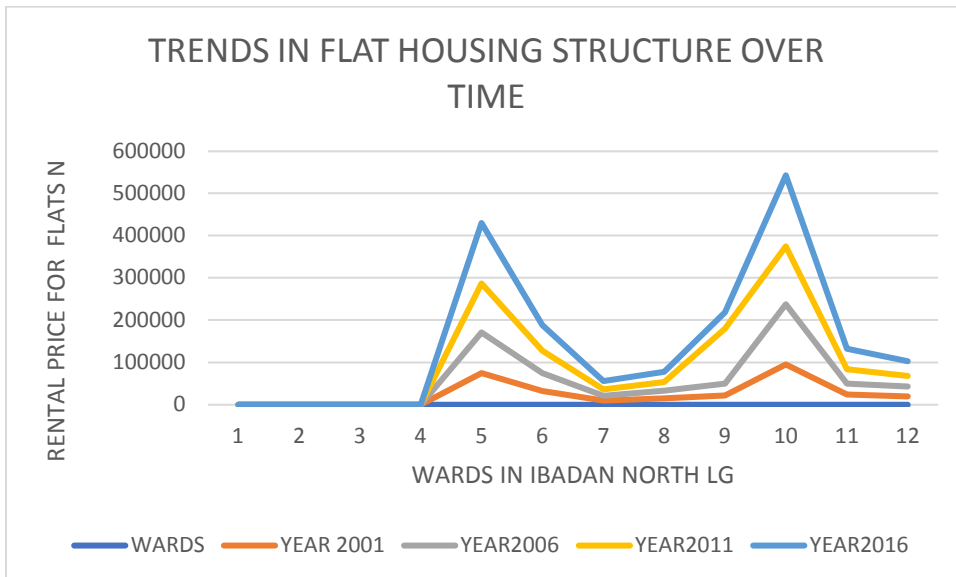


**Fig 6.1:** Trends in the average rental price in Brazilian structure across wards in Ibadan North between 2001-2016  
**Source:** Authors’ Analysis, 2016

**Trends in flat housing structure**

Furthermore, a study on the trends in rental prices over time on flat housing structure revealed that (Figure 6.2) in Wards 1-4, there was little or no flat structure; as stated earlier, these areas represent the inner old core of the study area, ranging from the compound, derelict housing structure in Beere to the fairly better Brazilian structure in Wards 3 and

4. Two areas are notable for flat structure: the low residential area, the GRAs in Ward 5 (Bashorun, Agodi GRA, Ikolaba) and Ward 10 (New Bodija Aare).



**Fig 6.2:** Trends in flat housing structure over time

**Trends in duplex housing structure over time**

Regarding the trend in duplexes in housing structure, the study revealed relatively no rental

stock for duplex structures in Wards 1-4 (See Fig. 6.3) and their main dominance in localities in Wards 7 and 10 (see Fig. 6.3).

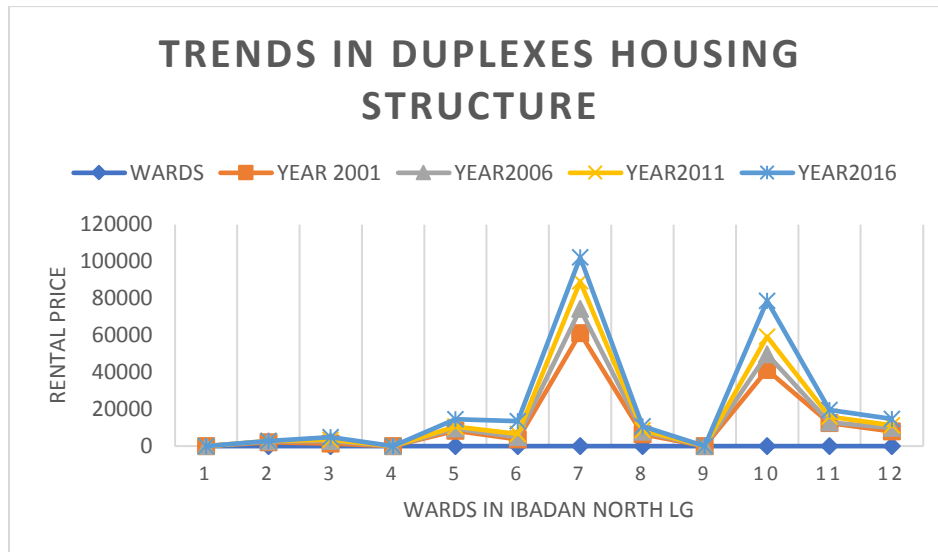


Fig 6.3: Trends in duplex housing structure over time

**Trends in bungalow housing structure in Ibadan North over time**

The study on the trend in bungalow housing structures revealed an insignificant increase and significant drop in bungalow structures in Wards 1-4 and Wards 6 and 7 (see Fig. 6.4). Ward 6 is

relatively the Hausa-Fulani community and has virtually none of the bungalow structures consisting mainly of the old mud family inherited houses. However, localities in Wards 7 and 10 reveal a significant and continuous rise in rental values for bungalows.

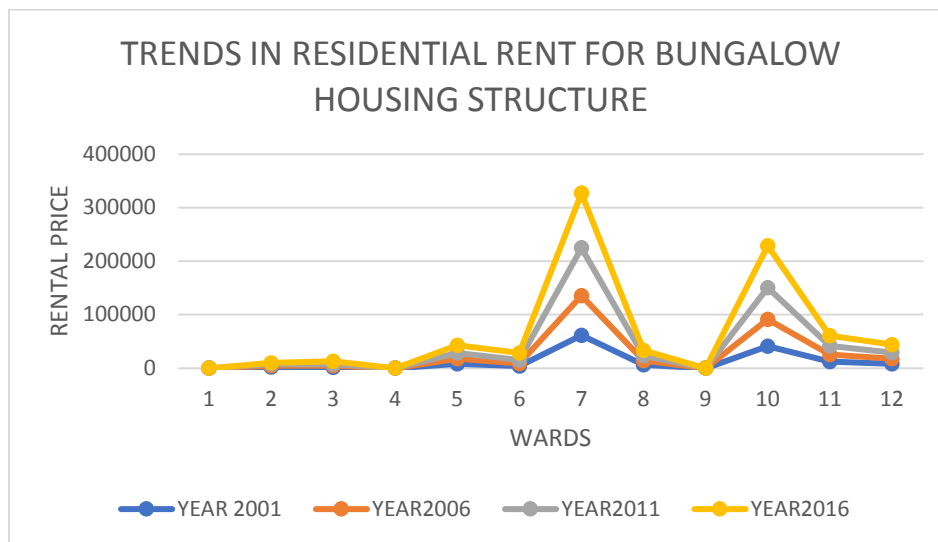


Fig 6.4: Trends in the rental price for bungalow housing structure

**Factors influencing rent over time**

Regarding the factors that influence rent over time, the study revealed that inflation strongly (41.1%) accounted for changes in rental prices over time in the study area (see Fig. 6.7). The Other factor, such

as the cost of rehabilitation, accounted for 32.1%, neighbourhood/location factor accounted for 11.6% while government actions accounted for the least 1.1% (see Table 6.5).

**Table 6.5: Factors influencing housing rent dynamics in Ibadan North (2001-2016)**

Factors influencing rent in Housing Rent in Ibadan 2001-2016	Frequency	Percentage
Rehabilitation	122	32.1
Activities of realtors and landlords	24	6.3
Inflation	156	41.1
Government actions	4	1.1
Neighborhood/locational factors	44	11.6
Others	30	7.9

**Source:** Authors’ Analysis, 2016

**Discussions**

Regarding the socioeconomic characteristics, the high prevalence of males in the study agrees with the study of Adam *et al.* (2014), which asserted that most household heads and renters are male, many of whom are also married. Hence, demographic characteristics will be significant in the study of rental values. The dominance of Yoruba ethnic extraction reflects the setting of the study, where indigenes are residents. The observation aligns with the previous work on Ibadan city by Filani *et al.* (1994), where it was observed that Yoruba is the dominant ethnic group in the Ibadan Metropolis. On the issue of the income structure, it is clear that the majority of the respondents are low and medium-income earners, considering the national minimum wage of ₦18,000 prevalent and this also explains why the rental price is more influenced by neighbourhood/locational factors than housing attributes.

With reference to characteristics of housing structure, renters are more predominant in the study area, as it is prevalent in many urban centres in sub-Saharan Africa and, much more importantly, in Nigeria. Most respondents walk within the minimum acceptable walking distance, reflecting both economic and health benefits on their part. A bungalow is the most common structure in the area because of its cheapness compared to other types of buildings in terms of overall construction cost. This is plausible as this structure is common among renters in many urban centres, whose main reason for coming to the urban centers is to reduce mobility, secure employment and connect to other places of agglomerations in the urban centres.

The observed fall in the rent trend in Ward 6 is premised on its relative slum nature, particularly in Sabo and its environs, which are predominantly occupied by the Hausa-Fulani, whose areas are characterised by poor housing. However, Ward 5 (Gate, Ikolaba, Bashorun, Oluwo, Ashi), being an urbanised area consisting of many nuclei, is a centre of attraction for many economic activities and is characterised by high-income earners experienced a rise in trend (Fig. 6.1).

Meanwhile, the predominance of better housing structures (flats) in New Bodija, Oshuntokun Avenue and Aerodrome, which are notable for major economic activities, fluctuate in sharp contrast with Old Bodija and Agbowo that have a high demand for Brazilian housing structures and high competition for land uses for banking activities and construction of modern shopping markets and stores. In addition, the existence of predominance of flats and duplexes in Bashorun informed the reason for strong competition for the need for residential structures or commercial properties, especially those that are along the Gate- Iwo Road Traffic corridor and other important transport networks. Summarily, the high socio-economic attributes of the residents and better housing structure in the study area agree with most urban land use theories, such as classical models, Alonso Bid Model and rental theory posited that land values are high in city centres and in nodal places. Hence, most affluent owners' and developers' choices are based on high returns on property values such as flats and duplexes. More, there is a high correlation between land values and rental values; hence, places notable for high land values will also demand high rental prices. Also,

from field observations and opinions of estate agents, there is strong competition for land in these areas for commercial purposes. Hence, as land values increase, competition for other land uses such as commercial, rental, and property values, will also increase. Hence, a positive increase in rental values over time and the prevalence of duplexes in such localities, including New Bodija and Aare. This is plausible because the areas house the larger population of the working class structure and also have proximity to several nuclei in the LGA, not far from Mokola Roundabout, University of Ibadan, and State and Local Government Secretariats, Ikolaba, etc.

Considering the need for better housing, there is a strong attraction for bungalow structures as against other structures. Others chose bungalows because of their relative health and safety status. This is because of the relatively cheap house rent prices compared with duplexes in the area. However, it could be said that the distinction between the bungalows in Ward 7 (Oremeji, Ajibade, etc.) and against those in Ward 10 are based on the differences in the long age, beauty and quality of the building structure in the area. Also, localities in Ward 7 have better bungalow structures than Ward 10 because of its proximity to the CBD (Dugbe), where the owner of the building would have upgraded for higher rent. The implication of a high inflation rate as the highest factor influencing rent over time is that it will increase the housing production rate and indirectly influence rental prices as houses are made for the highest bidder. This assertion validates the works of Wilhelmsson (2000), who asserted that four main attributes influence rental price and they are structural/physical characteristics, which are improved upon through rehabilitation, macro-economic attributes such as inflation, neighbourhood and locational attributes. However, inflation happens to be the dominant factor influencing rental price in this study, followed by the cost of rehabilitation, which is directly related to structural/physical attributes and, thirdly

neighbourhood/locational factors. ***Hypothesis testing on rent prices over time.***

#### ***Trends in rent prices over space***

Furthermore, in testing for trends in rent prices over space, the first hypothesis earlier stated was tested. Relying on simple regression model, the monthly rent per room over time was used as the dependent variable (X) and the wards in the local government (Wards 1-12) as independent variables. The study revealed increased rent over time and variation across the wards (Fig. 6.6). Also, localities in Wards 1-4 had low rent and the changes in rent over time were insignificant. Observed changes occurred between ₦500 in the year 2001 and ₦1000 in 2016. This is because the houses in this area are of low quality and poor neighbourhood. As earlier stated, a filtering process was observed to be taking place. However, places in Ward 5 (Bashorun, Ikolaba and Ashi) revealed an increase in rental prices over time.

A simple regression analysis was also performed for the three-time phases 2001, 2006 and 2011 and the result revealed strong regressions coefficient ( $R^2$ ) for the three-time phases under consideration ( $R^2=0.997$  for 2001, 0.998 for 2006 and 0.967% for 2011). This connotes that the explanatory variable(s) strongly accounted for the variation in rental prices observed in the time phases considered in the housing structures investigated. Also, there is a strong tendency for a continuous increase in rental prices in the local government, especially in the urban wards. Meanwhile, if inflation persists and urbanisation process is not well managed, rental housing, more specifically and housing generally, will become a luxury and out of the reach of the urban poor and medium-income earners. The implication of this is that the urban poor might be forced to take accommodation in slums and squatter settlements in the traditional core areas, which are predominantly blighted areas.

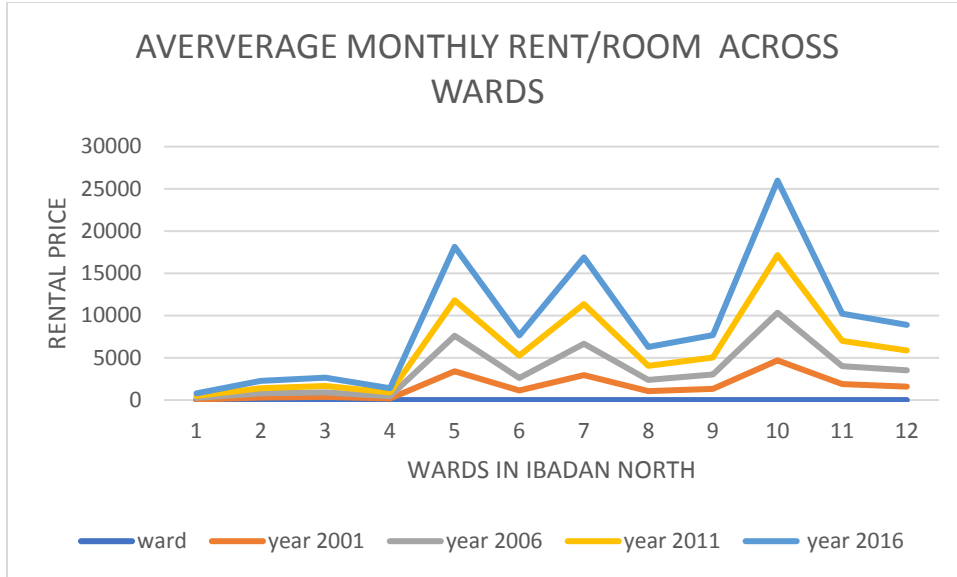


Fig 6.6: Trends in rent prices in wards over time

Table 6.4: Model Summary of the simple regression line analysis for the trends in rent prices between 2001- 2011

MODEL SUMMARY	2001	2006	2011
R	99.8%	99.9%	98.3%
R <sup>2</sup>	99.7%	99.8%	96.7%
ADJUSTED R <sup>2</sup>	99.7	99.8%	96.4%
F	3238.151	6521.658	291.645
SIG.	.000	.0000	.000

Source: Authors’ Analysis, 2016

**Hypothesis testing on rental price and housing structure**

**Relationship between rental price and housing structure, neighbourhood and locational factors**

In testing for the relationship between the rental price and housing structure, neighbourhood and locational factors, hypothesis two was tested. A multiple regression analysis was also used to carry out the test. While rental price (average monthly rent per room in 2016) was used as the dependent variable, housing and neighbourhood/locational factors were used as the independent variable.

The result of the multiple regressions revealed an R<sup>2</sup> of 0.998, with an F value of 211.298 and p p-value 0.00. This implies that there is a significant relationship between rental price (Y) and housing and neighbourhood/locational factors (x<sup>1</sup> x<sup>2</sup>..x<sup>n</sup>). Our R square of 0.998 accounted that our independent variables (housing structure and neighbourhood/locational factors) strongly

accounted for about 99.8% variation in (explaining) factors influencing housing rent price in Ibadan North. The sig. value is at .000, which is less than 0.05; hence we can accept the hypothesis, which states that there is a significant relationship between housing structure and neighbourhood/locational factors.

A further look into all the variables revealed that the number of toilets available and the age of the building positively influence the rental price. Considering the fact that the majority of the respondents are renters in the Brazilian housing structure (39%), having more toilets in a building is a strong determining factor for renting, as more toilets provide more convenience for renters who will have to share such facilities.

This study confirms a similar study by Sumila and Talukdar (2012) on living conditions and determinants of rents of rental housing in the slums of Nairobi and Dakar; they asserted that rents are

positively influenced by electricity, access to toilets and neighbourhood factors. Also, Pierre's (2014) work on property value in Rwanda affirms that neighbourhood quality, electricity, lightning, environmental amenities like flush toilets etc., influenced housing prices in urban centres.

Considering the age of the building, there is a positive relationship between the age of the building and rental price. This invalidates the assumption made by Sir Man *et al.* (2005), who averred that the age of a building is negatively related to price. It is believed that as the age of houses increases, their economic value decreases and their level of satisfaction derived. However, from this study, the majority of the residents are renters who have no adequate knowledge of determining the age of buildings, thereby evaluating the buildings based on their physical conditions, neighbourhood and locational factors. Hence, the better the housing condition, which can be influenced through repairs and regular maintenance, the longer the neighbourhood has been well established, which influences the provision and availabilities of social infrastructure (roads, water supply, electricity etc.) and the prevailing rental market dynamics in the area under consideration. Hence, the age of buildings can be

positively related in an established neighbourhood which has much of its housing stock constructed long over time.

The study revealed that the type of house and number of rooms are negatively related to the rental price. About 39.2% of the housing types are Brazilian structures and about 23.2% are other structures, such as compound houses in the traditional core areas and the slums. Also, the study revealed that 40.5% of the sampled respondents stayed in two rooms, and the proportion of residents who needed more than two rooms fell as the numbers increased. This peculiarity of the residents in the area under investigation explained why the type of house and number of rooms are negatively correlated to rental price in contrast to Sirmans *et al.* (2005) study in East Legon in Ghana, who asserted that the number of rooms available affects rental price positively.

The segmentation of the study area into traditional core areas, urban slums and urban wards, as observed from the study, influences the relationship of the factors in each area with rental price singlehandedly and its combined effects on it based on their aggregated values.

**Table 6.6: Summary of regression results for housing structure, rental price and neighborhood/locational factors**

Variables	B	T	Sig. T
<b>Constant</b>	-	12.026	.001
<b>Age of building</b>	.903	8.54	.003
<b>Type of House</b>	-.762	-14.163	.001
<b>No of Rooms</b>	-.402	-14.671	.019
<b>Dominant land use</b>	-.490	-8.106	.004
<b>Gated neighborhood</b>	-.854	-14.179	.001
<b>No of nursery/primary school</b>	-.788	-9.268	.003
<b>Material used for the wall</b>	-.746	-8.179	.004
<b>No of toilets</b>	.620	6.466	.008

Source: Authors' Analysis, 2016



**Table 6.7: Regression Model Summary**

MODEL SUMMARY		REMARKS
MULTIPLE R	0.999	
R SQUARE	0.998	
ADJUSTED R SQUARE	0.994	
STANDARD ERROR OF ESTIMATE	209.92562	
FISHERS' VALUE	211.298	
SIG.	.000	Significant

P < 0.05

Authors' Analysis, 2016

**Conclusion and recommendations**

This study has examined rental dynamics in Ibadan North LGA. It was revealed that there is a positive association in rent patterns over time and across space (wards). However, the main factors responsible for rental patterns observed in the study area include socio-economic characteristics across space(wards) and housing structural characteristics, which are highly correlated. Hence, there should be further research into rental housing in urban centres, in sub-Saharan Africa in unravelling urban rental housing nature, its peculiarities and variations across places, in providing policy framework and probable models for meeting short-run lag in housing supply and housing needs for low and medium income earners in urban centres.

Therefore, Government planning agencies at the local government should regulate minimum standards for the provision of rental housing by both private developers and landlords and continuously scale up facilities that can meet both the urban low and moderate groups. It must also be ensured that housing options in the core areas are upgraded to meet the WHO standard for shelter with necessary services and facilities for meeting the physical, mental and social needs of each individual, especially children and other vulnerable populations who might have no other option than these areas.

**References**

Ahir, H. and Laigani, P. (2020). Global houses prices: Trend and cycles. *Economic and finance*, Oxford Research Encyclopedia, [http://doi:1057721\\_intechopen.816223](http://doi:1057721_intechopen.816223).

Almusaed, A. and Almsad, A. (2018). Introductory chapter on housing policy matters. *Housing 2018*. Doi:1057721intechopen.81622.

Aluko (2000). Urban market segmentation and house values in metropolitan Lagos. *The Nigerian Geographical Journal New Series*, 3 & 4.

Aluko, O. (2011). the effects of location and neighbourhood attributes on housing values in Metropolitan Lagos. *Journal of Geography and Regional Planning*, 4(16), 767-775.

Ankeli, A. I. (2022). Influencing Factors of Property Use Conversion and Residential Property Rental Value In Ikeja, Nigeria. *International Journal of Real Estate Studies (Interest)*, 16(2), 118-128.

Appau, W. M. (2014). Assessing the factors that influence rental values in WA Municipality. Dissertation submitted to the Department of Real Estate and Land Management, University of Development Studies.

Briggs, P. and Ng, T. (2009). Trends and cycles in New Zealand House Prices. *A Paper for CHRANZ Workshop*.

Falayi, R. O. and Adedokun, J. A. (2017), Determinants of Demand for Rental Accommodation in Ibadan. A case of Ibadan North, *International Business and Management*, 14(3), 45–48.

Famewo, A. S. (2016). Analysis of housing rent dynamics in Ibadan North Local Government. A B.Sc long essay submitted to the Department of Geography, University of Ibadan, October, 2016.

Filani, M. O. *et al.* (Eds.). (1994). The spatial growth of Ibadan city and its impact on rural hinterland in Rex. Ibadan, Charles Publication.

Germin, Adull (1990). Theories and models of the peri-urban interface: A changing conceptual landscape

- peri-urban research project team. University College London.
- Idudu, O. J. A. (1989). Mobilisation of Private and Public Investments in Property Development. Paper Presented at the 19th Annual Conference of the Nigerian Institution of Estate Surveyors and Valuers in Lagos, 6th – 9th April, 1989.
- Iroham, C. *et al.* (2014). Assessing the trend in rental values in commercial properties along Oyemekun, Akure City.
- Julius, A. B. (2010). Analysis of the relationships of infrastructural facilities in the determination of rental values of residential properties in Akure, Nigeria. *Arts and Social Sciences Journal*.
- MC Cluskey *et al.* (2000). The application of surface generated interpolation models for the prediction of residential property values. *Journal of Property Investment and Finance*, 18(2), 162-176.
- Megbolugbe, I. F. (1983). An Hedonic Index Based Model of Housing Demand for Third World Cities. *A Ph.D. thesis, Submitted to the Department of City and Regional Planning, University of Pennsylvania*.
- Mueller, G. R. (1999). Real estate rental growth rates at different points in the physical market cycle. *Journal of Real Estate Research*, 18(1), 131-150.
- Nwuba, C. (2004). An Analysis of Location Differences in Trends in House Rents in Kaduna, Nigeria, 1986-2003. *The Estate Surveyor and Valuer*, 27(1), 64-71.
- Olayiwola, L. M., Adeleye, O. and Oduwaye, A. (2006). *Spatial variation in residential land value determinants in Lagos Nigeria*. Promoting Land Administration and Good Governance 5<sup>th</sup> FIG Regional Conference, Accra, Ghana.
- Omuojine, E. O. (1994). Property market in Nigeria: Analysis and perspective. *The Estate Surveyor and Valuer*, 18(1), 15-21.
- Pierre, K. (2014). The determinants of urban land and property values: The case of Rwanda. Thesis. University of San Francisco.
- Private Residential Sector (2022). House of Commons Library, United Kingdom.
- Ruivo, R. (2010). Determinants of Rental Rates in Major Cities in the United States. *Bryand Economic*.
- Sirmans *et al.* (2008). Determinants of house prices: A quantile regression approach. *Journal of Real Estate Finance and Economics*.
- Smith, N. (1987). Gentrification and the rent gap. *Annals of the American Association Geographers*, 77(3), 462-465.
- Sumila *et al.* (2012). Living conditions, rents and their determinants in the slums of Nairobi and Dakar. *Land Economics*, 88(2), 251-274.
- ThisDay Newspaper, May 2022.
- United Nations Centre for Human Habitats (UNCHS) (1996). *An urbanizing world: Global report on human settlements*. Oxford, Oxford University Press.
- UNHABITAT (2005). Financing urban shelter: *Global report on human settlements*. London, Earthscan Inc.
- UNHABITAT (2009). Planning sustainable cities. *Global report on human settlements*. London, Earthscan Inc.
- UN (2015). *Demographic challenges and opportunity for sustainable development planning*. New York, United Nations.
- Wilhemsson, M. (2000). The impact of traffic noise on the values of single-family houses. *Journal of Environment Planning and Management*.
- World Health Organization (1976). Definition of Housing.