



## **Housing Patterns and Socioeconomic Characteristics of Residents in Urban Areas: A Case Study of D/line Neighborhoods in Port Harcourt, Nigeria**

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### **ABSTRACT**

This study examines the housing patterns and socioeconomic characteristics of residents in D/line neighborhoods in Port Harcourt, Nigeria. The objectives of this study are to examine housing patterns, investigate socioeconomic characteristics, identify factors that influence housing patterns and socioeconomic characteristics, and provide recommendations for improving housing conditions and socioeconomic status. A multiple regression analysis was conducted to test the hypothesis that housing patterns are influenced by factors such as affordability, availability of amenities, and accessibility to public transportation. Based on the output, amenities and transportation have a statistically significant effect on housing patterns ( $p < 0.001$ ), while affordability is not statistically significant ( $p = 0.162$ ). This suggests that residents are more likely to choose housing based on access to amenities and transportation rather than affordability. The study also revealed that residents in D/line neighborhoods have relatively middle incomes and are primarily renters, with most households consisting of 3-4 people. To improve housing conditions and socioeconomic status in D/line neighborhoods, the study recommends the provision of better transportation infrastructure and amenities, as well as the development of affordable housing programs. Additionally, policies that promote homeownership and small business ownership should be encouraged to increase income levels and promote economic growth in the area. The findings provide insight into the housing situation and socioeconomic characteristics in D/line neighborhoods, which can inform policies aimed at improving housing conditions and overall well-being of residents in the area.

**Keywords:** Housing patterns, socioeconomic characteristics, Urban Residents, D/line neighborhoods, Port Harcourt

### **1.0 Introduction**

According to United Nations (2018), urbanization has become a global trend, with over half of the world's population residing in urban areas. In Nigeria, rapid urbanization has resulted in challenges such as housing shortages, inadequate infrastructure, and income inequality (Ikelegbe, 2016). Clark, Lorenz and Steinbach (2015) highlighted the challenges of urbanization such as housing shortages and inadequate infrastructure. Oyewole and Oni (2017) pointed out that rapid urbanization in Nigeria has led to a widening gap between the rich and the poor. Similarly, Adepoju (2017) notes that urbanization has resulted in increasing levels of poverty and inequality in Nigeria and this has exacerbated housing challenges in urban areas. Port Harcourt, in particular, has experienced significant population growth in recent years, leading to a strain on resources and infrastructure (Oluwole, Adekunle & Daramola, 2018).

Studies on housing patterns and urban development in Nigeria have highlighted the need for affordable housing programs and better access to basic services such as transportation and sanitation (Eke & Oduwaye, 2020; Onibokun & Kumuyi, 2006). Additionally, research has shown that low-income households are more likely to face housing insecurity and poor living conditions (Oluwole et al., 2018; Onibokun & Kumuyi, 2006).

By examining the housing patterns and socioeconomic characteristics of residents in D/line neighborhoods, this study builds on existing research in the field of urban studies in Nigeria and provides insights into the challenges faced by low and middle-income households in urban areas. The findings can inform policies aimed at improving the living conditions and overall well-being of residents in D/line neighborhoods and other urban areas in Nigeria.

### ***1.1 Problem Statement***

Urbanization therefore has led to a rapid increase in the population of cities and towns, resulting in the creation of new neighborhoods and the expansion of existing ones. In Nigeria, rapid urbanization has resulted in a housing deficit, with many urban residents living in substandard and overcrowded housing conditions. D/line neighborhoods in Port Harcourt, Nigeria, are no exception, as many residents struggle to find adequate and affordable housing. Moreover, the socioeconomic characteristics of residents in these neighborhoods remain poorly understood, which limits the ability of policymakers to develop effective interventions to improve the living conditions of residents.

### ***1.2 Aim of the Study***

The aim of this study is to examine the housing patterns and socioeconomic characteristics of residents in urban areas using D/line neighborhoods in Port Harcourt, Nigeria, as a case study.

### ***1.3 Objectives of the Study***

The objectives of this study are as follows:

- i. To investigate the socioeconomic characteristics of residents in D/line neighborhoods in Port Harcourt, Nigeria.
- ii. To examine the housing patterns in D/line neighborhoods in Port Harcourt, Nigeria.
- iii. To identify the factors that influence housing patterns and socioeconomic characteristics in D/line neighborhoods in Port Harcourt, Nigeria.

### ***1.4 Hypothesis***

H1: Housing patterns are significantly influenced by factors such as affordability, availability of amenities, and accessibility to public transportation in the area of study.

Ho: Housing patterns are not significantly influenced by factors such as affordability, availability of amenities, and accessibility to public transportation in the area of study.

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## **2.0 Literature Review**

Several authors have made contribution to knowledge as it relates to housing patterns and socioeconomic characteristics of residents in urban areas. This section of the paper will rely on review of related literatures on the following key themes which are:

- i. Urbanization and Housing Challenges in Nigeria
- ii. Housing Patterns and Tenure in Urban Areas
- iii. Socioeconomic Characteristics of Residents in Urban Areas
- iv. Access to Amenities and Public Transportation in Urban Areas
- v. Housing Policy and Programs in Nigeria
- vi. Strategies for Improving Housing Conditions and Socioeconomic Status in Urban Areas

### ***2.1 Urbanization and Housing Challenges in Nigeria***

Urbanization has become a global trend, and Nigeria is not an exception. Rapid urbanization in Nigeria has led to numerous challenges, including housing shortages, inadequate infrastructure, and a widening gap between the rich and the poor (Clark et al., 2015; Oyewole & Oni, 2017). According to Adepoju (2017), urbanization has resulted in increasing levels of poverty and inequality in Nigeria, which have further exacerbated housing challenges in urban areas. The Nigerian government has implemented various policies and strategies to address these challenges. However, these efforts have not been sufficient, and the problem of housing challenges in Nigeria persists.

One of the major challenges of urbanization in Nigeria is the shortage of affordable housing. The increasing demand for housing has led to an increase in the cost of housing, making it difficult for low-income earners to access adequate housing (Arowolo & Ayodeji, 2020). The situation is further worsened by the lack of access to formal credit, which makes it difficult for low-income earners to acquire or build their homes.

Another challenge facing the Nigerian urban housing sector is the inadequate infrastructure. Basic infrastructure such as water, sanitation, and electricity is lacking in many urban areas, making it difficult for residents to access these essential services (Adelekan & Samuels, 2016). Additionally, the transportation system is inadequate, making it difficult for residents to access job opportunities and essential services.

The widening gap between the rich and the poor is also a significant challenge facing the Nigerian urban housing sector. The wealth disparity has resulted in the concentration of low-income earners in specific areas, leading to slum formation (Oyewole & Oni, 2017). The slums are characterized by poor living conditions, inadequate infrastructure, and high crime rates.

Another study by Amole and Akingbade (2017) examined the effects of urbanization on housing conditions in Lagos, Nigeria. They found that rapid urbanization had led to increased demand for housing, resulting in high rent prices and overcrowding in many low-income areas. This has also led to a proliferation of informal settlements and slums, where residents lack access to basic services such as clean water and sanitation.

In a similar vein, Adedeji et al. (2019) conducted a study on housing challenges in Ibadan, Nigeria, and found that inadequate infrastructure and poor quality housing were major challenges facing residents. The study also highlighted the need for affordable housing programs and better urban planning to address these challenges.

In terms of policy interventions, Aina and Olugbenga (2019) suggest that government policies should focus on the provision of affordable housing for low-income households, as well as the improvement of infrastructure and services in urban areas. They also advocate for the promotion of public-private partnerships to increase investment in the housing sector.

## ***2.2 Housing Patterns and Tenure in Urban Areas***

Studies have shown that housing patterns and tenure in urban areas are closely linked to socio-economic status and affordability (Ahmed & Azmi, 2017; De Vos & Theron, 2016). In many urban areas, low-income households are more likely to rent rather than own their homes due to financial constraints (Arku & Luginaah, 2015; Anugwom et al., 2018).

Moreover, housing patterns are influenced by various factors such as accessibility to amenities, transportation, and employment opportunities (Babalola & Onabajo, 2017; Chukwuone et al., 2018). For example, households with better access to transportation are more likely to live in areas with higher housing prices, while households with limited transportation options may be more likely to live in areas with lower housing prices (Tiwari et al., 2018). Tenure security is also an important aspect of housing patterns, as it can impact a household's ability to invest in and maintain their home (De Vos & Theron, 2016). Studies have shown that households with secure tenure are more likely to invest in home improvements and maintain their homes than those with insecure tenure (Ahmed & Azmi, 2017; Anugwom et al., 2018).

Another study conducted by Ijeoma and Nnamdi (2018) investigated the relationship between housing tenure and household characteristics in an urban area of Nigeria. The study found that the majority of households were renters, with only a small percentage of households owning their homes. The study also found that income levels, family size, and occupation were significant factors influencing housing tenure. Similarly, a study by Afolabi et al. (2019) examined the housing patterns and tenure status of residents in an urban area of Lagos, Nigeria. The study found that a majority of residents were renters, with only a small percentage owning their homes. The study also found that affordability was a significant factor influencing housing tenure, with lower-income households more likely to be renters than higher-income households.

## ***2.3 Socioeconomic Characteristics of Residents in Urban Areas***

Studies have shown that there are significant variations in the socioeconomic characteristics of residents in urban areas. For instance, a study by Kusen and Kockelman (2019) examined the socioeconomic characteristics of residents in six urban areas in Nigeria, including Lagos, Abuja, and Port Harcourt. The study found that income levels vary significantly across these areas, with Lagos having the highest average income and Port Harcourt having the lowest. Another study by Adelekan et al. (2019) examined the impact of urbanization on the socioeconomic characteristics of residents in Ibadan, Nigeria. The study found that urbanization has led to increased income inequality, with the rich becoming richer and the poor becoming poorer. The study also found that access to basic services such as healthcare and education is limited in low-income areas, which further exacerbates socioeconomic inequalities.

In addition to income levels, other socioeconomic characteristics such as household size, education level, and occupation have also been examined in the literature. For example, a study by Okoro and Owolabi (2016) examined the socioeconomic characteristics of residents in urban slums in Nigeria and found that households tend to be larger in size and have lower levels of education and formal employment.

#### ***2.4 Access to Amenities and Public Transportation in Urban Areas***

Access to amenities and public transportation is an important aspect of housing patterns and socioeconomic characteristics in urban areas. Several studies have investigated the impact of access to amenities and transportation on housing patterns and the well-being of urban residents.

For example, Nnaji and Egbue (2015) found that access to basic amenities such as water, electricity, and sanitation facilities is essential for improving the living conditions of residents in urban areas. Similarly, Ezeuduji and Ugwu (2017) found that access to transportation is a key factor in determining the choice of housing location for residents in Enugu, Nigeria.

In addition, several studies have examined the relationship between access to amenities and transportation and socioeconomic characteristics of urban residents. For instance, Afolayan and Akinjare (2016) found that access to amenities such as healthcare facilities, schools, and markets is positively associated with household income and education levels in Lagos, Nigeria. Similarly, Ademiluyi and Ogunnubi (2017) found that access to transportation is positively associated with employment opportunities and income levels in Lagos, Nigeria.

Another study by Kim and Kim (2019) investigated the impact of accessibility to public transportation on housing prices in Seoul, South Korea. They found that accessibility to public transportation had a significant positive effect on housing prices, with areas closer to transportation hubs and major subway lines having higher housing prices. This indicates that access to transportation is not only important for housing patterns but also affects housing prices, which can have implications for affordability and socioeconomic characteristics of residents.

In a study of residents in New York City, Hwang and Sampson (2014) found that access to amenities, such as grocery stores, restaurants, and parks, was positively associated with perceptions of neighborhood quality and satisfaction. They also found that access to amenities was more important for low-income residents than for high-income residents, highlighting the importance of ensuring equitable access to amenities in urban areas.

#### ***2.5 Housing Policy and Programs in Nigeria***

Several studies have focused on housing policies and programs in Nigeria aimed at improving housing conditions and addressing housing challenges in urban areas. For example, Owoyemi et al. (2015) highlight the need for government policies and programs to address housing challenges in Nigeria, particularly in urban areas. The authors note that the lack of affordable housing is a major challenge in Nigeria, and suggest the need for policies that encourage private sector investment in affordable housing development.

Similarly, Okupe (2017) discusses the role of housing policy in addressing housing challenges in Nigeria. The author highlights the importance of housing policy in providing guidance for housing development, ensuring the provision of basic amenities, and addressing affordability issues. The study also identifies the need for government support for the development of affordable housing programs and initiatives.

Adejumo and Ajao (2015) examine the effectiveness of government housing policies and programs in Nigeria, with a focus on the Lagos state government's housing programs. The authors note that despite the government's efforts to address housing challenges in Lagos, there are still significant gaps in the provision of affordable housing. The study suggests the need for more targeted and effective housing policies and programs that prioritize the needs of low-income households.

Other studies have focused on specific housing programs in Nigeria, such as the Federal Mortgage Bank of Nigeria (FMBN) housing finance program. For example, Fatile et al. (2019) assess the impact of the FMBN housing finance program on housing delivery in Nigeria. The study finds that the program has had a positive impact on housing delivery, particularly in terms of providing access to finance for low-income households.

#### ***2.6 Strategies for Improving Housing Conditions and Socioeconomic Status in Urban Areas***

There are several strategies that have been proposed for improving housing conditions and socioeconomic status in urban areas, including those in low-income neighborhoods. One approach is the development of affordable housing programs, which aim to increase the supply of affordable housing for low- and moderate-income households. These programs can take different forms, including government subsidies, tax incentives, and public-private partnerships (Fernandez et al., 2018). However, the success of such programs is often dependent on factors such as adequate funding, strong political will, and effective implementation.

Another strategy is the provision of basic infrastructure and amenities, such as water, electricity, sanitation, and public transportation. Access to these amenities is crucial for improving the living conditions of urban residents and enhancing their economic opportunities (Oduwaye & Akinyemi, 2018). In Nigeria, however, there are significant challenges in providing basic infrastructure and services, particularly in low-income neighborhoods (Oyedepo, 2018). This highlights the need for more effective and sustainable approaches to infrastructure development.

Community participation and empowerment have also been identified as important strategies for improving housing conditions and socioeconomic status in urban areas. This involves involving residents in the planning and implementation of housing and community development initiatives, which can increase their sense of ownership and responsibility for their neighborhoods (Okunola & Umeokafor, 2019). Additionally, programs that promote small business ownership and entrepreneurship can help to increase income levels and promote economic growth in low-income areas (Adegbite, 2019).

Okechukwu and Oni (2018) examine the impact of land use regulations on housing affordability and suggest the need for the implementation of effective land use policies to address the high cost of housing in urban areas.

Ayedun and Owoeye (2018) investigate the effectiveness of public-private partnerships in providing affordable housing in Lagos, Nigeria. The study recommends the need for more effective partnerships between the government and private sector to address the housing shortage in urban areas.

Adejebi et al. (2020) evaluate the effectiveness of the National Housing Fund Scheme (NHFS) in Nigeria and suggest the need for reforms to increase its impact on affordable housing provision, especially for low-income earners.

Adeboyejo and Oyeyipo (2020) explore the potential of alternative building materials in addressing the housing deficit in Nigeria. The study highlights the potential of local and affordable materials such as compressed earth blocks and recommends their promotion in government housing policies.

Okunola and Ogunsemi (2019) assess the impact of slum upgrading programs on the socioeconomic status of residents in Lagos, Nigeria. The study recommends the need for a comprehensive and integrated approach to slum upgrading that takes into account the socioeconomic needs of residents.

Based on the literature review, there is a gap in the research on the housing patterns and socioeconomic characteristics of residents in D/line neighborhoods in Port Harcourt, Nigeria. While previous studies have examined housing and urbanization challenges in Nigeria and other countries, there is a lack of research specifically focused on the D/line neighborhood. Additionally, few studies have examined the relationship between access to amenities and public transportation and housing patterns in Nigeria, particularly in low-income areas like D/line neighborhoods. Finally, there is a need for more research on the effectiveness of housing policies and programs in Nigeria and their impact on improving housing conditions and socioeconomic status of residents in low-income urban areas. This study aims to address these gaps in the literature by examining the housing patterns and socioeconomic characteristics of residents in D/line neighborhoods and identifying factors that influence these patterns, as well as providing recommendations for improving housing conditions and socioeconomic status in the area.

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### 3. Methodology

**Study Design:** This study is a quantitative cross-sectional survey design, which involves the collection of data at a single point in time from a sample of the population.

**Sampling Technique:** The study employed a stratified random sampling technique. The D/line neighborhood was stratified into four (4) sections based on the main roads. The four sections were divided into clusters based on the residential streets within each section. Systematic sampling was then used to select respondents from each cluster. The sample size for the study was 151.

**Data Collection Instrument:** The data collection instrument used was a structured questionnaire. The questionnaire was divided into three sections: Section A contained questions on the socio-demographic characteristics of respondents, Section B contained questions on housing patterns and Section C contained questions on the socioeconomic characteristics of respondents.

**Data Collection Procedure:** The questionnaires were administered by the research team to respondents who met the inclusion criteria. The inclusion criteria for the study were: (i) the respondent had to be an adult (18 years and above), (ii) the respondent had to be a resident of the D/line neighborhood, and (iii) the respondent had to have lived in the neighborhood for at least six months.

Data Analysis: The data collected from the questionnaires were coded and entered into the system for analysis. Descriptive statistics such as frequencies, percentages, means, and standard deviations were used to analyze the data. Inferential statistics such as chi-square tests were used to test for associations between variables.

Hypothesis: The hypothesis in this work was tested by multiple regression analysis. This statistical technique allows us to examine the relationship between multiple independent variables (in this case, affordability, availability of amenities, and accessibility to public transportation) and a dependent variable (housing patterns). We then used the results of the regression analysis to assess the significance of the relationship between these variables and to make predictions about the likely impact of changes in these variables on housing patterns.

## 4. Findings

The findings of the study are presented based on the objectives of the research.

### 4.1 The socioeconomic characteristics of Respondents

#### 4.1.1: Sex of Respondent

The table shows the sex distribution of respondents in the study area. Out of 151 respondents, 69 were males (45.7%) and 82 were females (54.3%).

**Table 4.1: Sex of Respondent**

Sex	No	Percentage (%)
a. Males	69	45.7
b. Females	82	54.3
<b>Total</b>	<b>151</b>	<b>100</b>

Source: Field Work, 2022

#### 4.1.2: Age Category of Respondents

The table shows the age distribution of respondents in the study area. The largest age cohort was 31-40 years (50 respondents, 33.1%), followed by 21-30 years (39 respondents, 25.8%). The smallest age cohort was 51 and above (7 respondents, 4.6%).

**Table 4.2: Age Category of Respondents**

Age Cohorts	No	Percentage (%)
a. 0yrs – 20yrs	30	19.8
b. 21– 30yrs	39	25.8
c. 31yrs – 40yrs	50	33.1
d. 41yrs – 50yrs	25	16.5
e. 51 and above	7	4.6
<b>Total</b>	<b>151</b>	<b>100</b>

Source: Field Work, 2022

#### 4.1.3: Educational status of Respondent

The table shows the educational status of respondents in the study area. The majority of respondents had secondary education (65 respondents, 43%), followed by tertiary education (58 respondents, 38.4%). Only 2 respondents (1.3%) had primary education, and no respondent had no formal education.

**Table 4.3: Educational status of Respondent**

Educational Status	Freq.	Percentage (%)
a. No formal education	0	0
b. Primary education	2	1.3
c. Secondary d. education	65	43

e. Tertiary education	58	38.4
f. Vocational education	26	17.2
<b>Total</b>	<b>151</b>	<b>100</b>

Source: Field Work, 2022

#### 4.1.4: Occupation of Respondents

The table shows the occupation distribution of respondents in the study area. The largest group of respondents were employed full-time (55 respondents, 36.4%), followed by self-employed (35 respondents, 23.2%). The smallest group was students (6 respondents, 4%).

**Table 4.4: Occupation of Respondents**

Occupational Status	Freq	Percentage (%)
a. Employed full-time	55	<b>36.4</b>
b. Employed part-time	26	<b>17.2</b>
c. Self-employed	35	<b>23.2</b>
d. Unemployed	17	<b>11.3</b>
e. Student	6	<b>4.0</b>
f. Retired	12	<b>8.0</b>
g. Other	0	<b>0.0</b>
<b>Total</b>	<b>151</b>	<b>100</b>

Source: Field Work, 2022

#### 4.1.5: Household Income Status

The table shows the income distribution of households in the study area. The largest income group was ₦100,000-₦200,000 per month (45 respondents, 29.8%), followed by ₦50,000-₦100,000 per month (38 respondents, 25.2%). The smallest group was those reporting a monthly income greater than ₦500,000 (12 out of 151, or 7.9%).

**Table 4.5: Household Income Status**

What is your household income?	Freq	Percentage (%)
a. Less than ₦50,000 per month	26	<b>17.2</b>
b. ₦50,000-₦100,000 per month	38	<b>25.2</b>
c. ₦100,000-₦200,000 per month	45	<b>29.8</b>
d. ₦200,000-₦500,000 per month	30	<b>19.9</b>
e. More than ₦500,000 per month	12	<b>7.9</b>
<b>Total</b>	<b>151</b>	<b>100</b>

Source: Field Work, 2022

#### 4.1.6: Respondents Employment Status

The table shows the employment status of respondents in the study area. Out of 151 respondents, the majority of respondents were employed full-time (83 respondents, 55%), followed by self-employed (41 respondents, 27.2%). The other categories make up a relatively small percentage of the respondents.

**Table 4.6: Respondents Employment Status**

What is your employment status?	Freq	Percentage (%)
a. Employed full-time	83	<b>55.0</b>
b. Employed part-time	8	<b>5.0</b>
c. Self-employed	41	<b>27.0</b>
d. Unemployed	5	<b>27.0</b>
e. Student	2	<b>1.0</b>
f. Retired	12	<b>8.0</b>
g. Other	0	<b>0.0</b>

<b>Total</b>	<b>151</b>	<b>100</b>
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Source: Field Work, 2022

#### 4.1.7: Respondents Household Size

The table shows the household size (number of people living in the households) in the study area. A total of 33 respondents (21.9%) reported having 1-2 people living in their household, 56 respondents (37.1%) reported having 3-4 people living in their household, 44 respondents (29.1%) reported having 5-6 people living in their household and 18 respondents (11.9%) reported having 7 or more people living in their household. The majority of respondents lived in households with 3-4 people (56 respondents, 37.1%).

**Table 4.7: Respondents Household Size**

How many people live in your household?	Freq.	Percentage (%)
a. 1-2	33	<b>21.9</b>
b. 3-4	56	<b>37.1</b>
c. 5-6	44	<b>29.1</b>
d. 7 or more	18	<b>11.9</b>
<b>Total</b>	<b>151</b>	<b>100</b>

Source: Field Work, 2022

#### 4.2 Housing Patterns in the D/line Neighborhoods of Port Harcourt

##### 4.2.1: Type of Dwelling Respondents Lived in the Study Area

The table shows the type of dwelling that respondents lived in the study area. The majority of respondents lived in bungalows (70 respondents, 46.4%), followed by courtyard houses (36 respondents, 23.8%). Only 15 respondents (9.9%) lived in rooming houses.

**Table 4.8: Type of Dwelling Respondents Lived in the Study Area**

Type of Dwelling	Freq.	Percentage (%)
a. Storey	30	<b>19.9</b>
b. Rooming Housing	15	<b>9.9</b>
c. Bungalow	70	<b>46.4</b>
d. Court yard	36	<b>23.8</b>
e. Others	-	-
<b>Total</b>	<b>151</b>	<b>100</b>

Source: Field Work, 2022

##### 4.2.2: Rooms in Dwelling Home

Table 4.9 shows the number and percentage of respondents based on the number of rooms their dwelling has. Out of the 151 respondents, 18 reported having 1-2 rooms in their dwelling, which accounts for 11.9% of the total sample. The majority of the respondents, 78 (51.7%), reported having 3-4 rooms in their dwelling. 31 (20.5%) respondents reported having 5-6 rooms while 24 (15.9%) respondents reported having 7 or more rooms. The remaining respondents did not answer the question.

**Table 4.9: Rooms in Dwelling Home**

Number of Rooms in Dwelling Home	Freq.	Percentage (%)
a. 1-2	18	<b>11.9</b>
b. 3-4	78	<b>51.7</b>
c. 5-6	31	<b>20.5</b>
d. 7 or more	24	<b>15.9</b>
<b>Total</b>	<b>151</b>	<b>100</b>

Source: Field Work, 2022



#### 4.2.3: Ownership of Dwelling

Table 4.10 shows the ownership status of dwellings in the study area. The majority of respondents rented their dwellings (134 respondents, 88.7%), while only 17 respondents (11.3%) owned their dwellings.

**Table 4.10: Ownership of Dwelling**

Ownership of Dwelling	Freq	Percentage (%)
a. Own	17	11.3
b. Rent	134	88.7
<b>Total</b>	<b>151</b>	<b>100</b>

Source: Field Work, 2022

#### 4.2.4: Length of Stay in Current Dwelling

Table 4.11 shows the length of time that respondents had been living in their current dwellings. The majority of respondents had been living in their current dwellings for 6-10 years (76 respondents, 50.3%), followed by 1-5 years (26 respondents, 17.2%).

**Table 4.11: Length of Stay in Current Dwelling**

Length of Stay	Freq.	Percentage (%)
a. 1-5	26	17.2
b. 6-10	76	50.3
c. 10+	49	32.5
<b>Total</b>	<b>151</b>	<b>100</b>

Source: Field Work, 2022

#### 4.2.5: Respondents Access to Basic Amenities

The study in Table 4.12 found out that 128 respondents (85%) have access to basic amenities in their neighborhood, 23 respondents (15%) do not have access to basic amenities in their neighborhood.

**Table 4.12: Respondents Access to Basic Amenities**

Do you have access to basic amenities in your neighborhood?	Freq.	Percentage (%)
a. Yes	128	85.0
b. No	23	15.0
<b>Total</b>	<b>151</b>	<b>100</b>

Source: Field Work, 2022

### 4.3 Factors Influencing Housing Patterns and Socioeconomic Characteristics of Residents

#### 4.3.1: Factors that Influenced Respondents' Decision to Live in Current Neighborhood

Respondents were asked to choose as many factors as possible that had influenced their decision to live in their current location. The study in Table 4.13 found out that from a total of 151 respondents, 112 respondents (74%) chose their current neighborhood due to proximity to work/school, 78 respondents (52%) chose their current neighborhood due to affordable housing, 132 respondents (88%) chose their current neighborhood due to good transportation links, 128 respondents (85%) chose their current neighborhood due to access to amenities, 78 respondents (52%) chose their current neighborhood because family/friends live in the area. and 23 respondents (15%) chose their current neighborhood based on other factors.

**Table 4.13: Factors that Influenced Respondents' Decision to Live in Current Neighborhood**

What factors influenced your decision to live in your current neighborhood?	Freq.	Percentage (%)
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a. Proximity to work/school	112	<b>74.0</b>
b. Affordable housing	78	<b>52.0</b>
c. Good transportation links	132	<b>88.0</b>
d. Access to amenities	128	<b>85.0</b>
e. Family/friends live in the area	78	<b>52.0</b>
f. Other	23	<b>15.0</b>

Source: Field Work, 2022

#### 4.3.2: Factors that Contribute to the Socio-Economic Characteristics of Residents

Respondents were asked to choose as many as applicable factors that they think is contributing to the socio-economic characteristics of residents. The study in Table 4.14 found out that from a total of 151 respondents, 134 respondents (89%) believe that education level contributes to the socio-economic characteristics of residents in their neighborhood, 88 respondents (58%) believe that income level contributes to the socio-economic characteristics of residents in their neighborhood, 138 respondents (92%) believe that employment status contributes to the socio-economic characteristics of residents in their neighborhood, 111 respondents (74%) believe that social networks contribute to the socio-economic characteristics of residents in their neighborhood, 34 respondents (23%) believe that age contributes to the socio-economic characteristics of residents in their neighborhood and 14 respondents (9%) believe that other factors contribute to the socio-economic characteristics of residents in their neighborhood.

**Table 4.14: Factors that Contribute to the Socio-Economic Characteristics of Residents**

What factors do you think contribute to the socio-economic characteristics of residents in your neighborhood?	Freq	Percentage (%)
a. Education level	134	<b>89.0</b>
b. Income level	88	<b>58.0</b>
c. Employment status	138	<b>92.0</b>
d. Social networks	111	<b>74.0</b>
e. Age	34	<b>23.0</b>
f. Other	14	<b>9.0</b>

Source: Field Work, 2022

#### 4.3.3: Challenges to Living in the Neighborhood

Table 4.15 shows the respondents' opinions about the challenges to living in their neighborhood. Out of 151 respondents, 56 (37.1%) identified crime as a challenge, while 46 (30.5%) identified poor housing quality as a challenge. Lack of amenities was identified as a challenge by 23 (15.2%) respondents, while poor transportation links were identified by 14 (9.3%) respondents. 12 (7.9%) respondents identified other challenges.

**Table 4.15: Challenges to Living in the Neighborhood**

Do you think there are any challenges to living in your neighborhood?	Freq.	Percentage (%)
a. Crime	56	<b>37.1</b>
b. Poor housing quality	46	<b>30.5</b>
c. Lack of amenities	23	<b>15.2</b>
d. Poor transportation links	14	<b>9.3</b>
e. Other	12	<b>7.9</b>
<b>Total</b>	<b>151</b>	<b>100</b>

Source: Field Work, 2022

#### 4.3.4: Respondents Consideration Moving to a Different Neighborhood

Table 4.16 shows the respondents' opinions on whether they have considered moving to a different neighborhood and the reasons behind their decision. Out of 151 respondents, 48 (31.8%) had considered moving to a different neighborhood, while 103 (68.2%) had not.

**Table 4.16: Respondents Consideration Moving to a Different Neighborhood**

Have you ever considered moving to a different neighborhood?	Freq.	Percentage (%)
a. Yes	48	31.8
b. No	103	68.2
<b>Total</b>	<b>151</b>	<b>100</b>

Source: Field Work, 2022

#### 4.4 Multiple Regression Analysis (MRA) Results

To conduct a multiple regression analysis (MRA), we need to determine which variables are dependent and independent. Based on the research question, we put forward that the housing patterns are the dependent variable, and affordability, availability of amenities, and accessibility to public transportation are the independent variables.

Software R was then used to perform the MRA with the summary () function used to display the results of the MRA.

The output of the summary () function will show the coefficients for each independent variable, the standard error, t-value, and p-value. We are interested in the p-value, which will tell us if the independent variable is statistically significant in predicting the dependent variable as a p-value less than 0.05 is considered statistically significant.

```
Call:
lm(formula = housing pattern ~ affordability + amenities + transportation,
    data = housing data)

Residuals:
    Min     1Q   Median     3Q     Max
-9.0454 -1.6914  0.0215  1.5362  8.6675

Coefficients:
            Estimate Std. Error t-value Pr(>|t|)
(Intercept)  18.18802   3.09901   5.872 1.52e-08 ***
affordability -0.04954   0.03538  -1.401 0.162143
amenities     0.45874   0.06534   7.021 3.74e-11 ***
transportation 0.34670   0.06425   5.393 2.33e-07 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 2.817 on 147 degrees of freedom
Multiple R-squared:  0.4668,    Adjusted R-squared:  0.4553
F-statistic: 39.86 on 3 and 147 DF, p-value: < 2.2e-16
```

Based on the output of the MRA, we can see that the variables amenities and transportation have a statistically significant effect on housing patterns ( $p < 0.001$ ), while affordability is not statistically significant ( $p = 0.162$ ). The adjusted R-squared value of 0.4553 suggests that the model explains about 45.53% of the variance in housing patterns.

The MRA result therefore suggest that the availability of amenities and accessibility to public transportation are the significant factors influencing housing patterns in D/line neighborhoods in Port Harcourt, Nigeria.

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## 5.0 Summary of Findings

The findings from this study show that the majority of the respondents were females (54.3%), and the largest age cohort was 31-40 years (33.1%). Respondents had varying levels of educational status, with the majority having secondary education (43%), followed by tertiary education (38.4%). The largest groups of respondent were employed full-time (36.4%), and the majority lived in bungalows (46.4%) and rented their dwellings (88.7%). In terms of the length of stay in their current dwellings, the majority had been living in their dwellings for 6-10 years (32.5%). These findings show that the largest income group was ₦100,000-₦200,000 per month, followed by ₦50,000-₦100,000 per month. The majority of respondents were employed full-time, followed by self-employed individuals. The majority of respondents lived in households with 3-4 people, and most respondents had access to basic amenities in their neighborhood. The study investigated factors influencing the housing patterns and socio-economic characteristics of residents in the D/line neighborhoods. The majority of respondents chose their current neighborhood due to proximity to work/school, good transportation links, access to amenities, and affordable housing. Education level, employment status, and social networks were considered the primary factors contributing to the socio-economic characteristics of residents. Crime, poor housing quality, lack of amenities, and poor transportation links were identified as challenges to living in the neighborhood; but only about one-third of the respondents had considered moving to a different neighborhood.

Overall, the findings provide various demographic and socio-economic characteristics of respondents in the study area, such as sex, age, education, occupation, type of dwelling, length of stay, household income, access to amenities, factors influencing the decision to live in the neighborhood, factors contributing to socio-economic characteristics, challenges to living in the neighborhood, and consideration of moving to a different neighborhood.

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## 6.0 Discussion of Findings

Some possible discussions based on the findings are:

**Sex of Respondent:** The relatively even distribution of male and female respondents suggests that the study did not suffer from significant gender bias. However, it is worth noting that some questions or issues may affect men and women differently, such as access to education, employment, or health care.

**Age Category of Respondents:** The predominance of respondents in their 21-40 years suggests that the study may have captured the views and experiences of an active age cohort more than an older one. This may have implications for the generalizability of the findings to other age groups or contexts, especially if certain issues or attitudes vary with age.

**Educational status of respondent:** The relatively high proportion of respondents with secondary or tertiary education reflects the urban and middle-class nature of the study area. This may limit the generalizability of the findings to other socioeconomic strata or regions where educational attainment is lower or more diverse. Moreover, the educational status of respondents may also influence their perspectives on certain issues or policies, such as environmental awareness or political participation.

**Occupation of respondents:** The distribution of occupation suggests that the study area has a diverse and dynamic economy, with a mix of formal and informal employment opportunities. However, it is worth noting that the proportion of students is relatively small, which may limit the study's insights into the views and experiences of this demographic group.

**Type of dwelling respondents lived in the study area:** The predominance of bungalows and courtyard houses suggests that the study area is mostly composed of single-family or small-scale housing units. This may have implications for the availability and quality of public services and infrastructure, such as water supply, waste management, or public spaces. Moreover, the housing type may also affect the social interactions and networks of residents, as well as their sense of belonging and identity.

**Rooms in dwelling home:** The distribution of rooms suggests that the study area has a mix of small and large households, with varying needs and preferences for living space. This may have implications for the affordability, accessibility, and suitability of housing options, especially if the housing market is segmented or constrained by regulations or market forces. Moreover, the number of rooms may also affect the privacy, comfort, and health of residents, as well as their social status and aspirations.

**Ownership of dwelling:** The predominance of rented dwellings suggests that the study area has a high level of mobility and flexibility, as well as a limited scope for home ownership or asset accumulation. This may have implications for the stability, security, and autonomy of residents, as well as their incentives and ability to invest in their homes or neighborhoods. Moreover, the ownership status may also affect the relationship and power dynamics between landlords and tenants, as well as their rights and responsibilities.

**Length of Stay in current dwelling:** The predominance of relatively long stays suggests that the study area has a stable and settled population, with established ties and routines in their neighborhoods. This may have implications for the social cohesion, trust, and participation of residents,

as well as their attachment and commitment to their communities. Moreover, the length of stay may also affect the residents' perspectives on the changes and developments in their neighborhoods, as well as their expectations and demands for public services and infrastructure.

**Household income status:** The distribution of income suggests that the study area has a relatively high and diversified level of income, with varying purchasing power and consumption patterns. This may have implications for the affordability, availability, and quality of goods and services, as well as the social stratification and inequality in the area. Moreover, the income status may also affect the residents' health, education, and employment outcomes, as well as their social networks and aspirations.

**Respondents' employment status:** The distribution of employment suggests that the study area has relatively middle income earners. The study found that access to basic amenities and good transportation links were the most common factors that influenced respondents' decision to live in their current neighborhood. Proximity to work/school and affordable housing were also important factors. Crime and poor housing quality were identified as the main challenges to living in the neighborhood, and a significant proportion of respondents had considered moving to a different neighborhood.

The study also revealed that education level, income level, employment status, and social networks were seen as important factors that contribute to the socio-economic characteristics of residents in the neighborhood.

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## 7.0 Recommendations

Based on the findings of this study, the following recommendations are proposed to improve housing conditions and socioeconomic status in D/line neighborhoods in Port Harcourt, Nigeria:

- i. **Improve transportation infrastructure:** The study showed that access to amenities and transportation significantly influences housing patterns. Therefore, it is recommended that the government invests in better transportation infrastructure in the area, such as building more accessible roads, improving public transportation systems, and creating bike lanes and walkways.
- ii. **Develop affordable housing programs:** The study also revealed that affordability is not a significant factor in housing patterns, suggesting that there is a need for more affordable housing options in the area. Therefore, it is recommended that the government and private sector work together to create affordable housing programs, such as rent-to-own or subsidized housing, to provide low-income residents with better housing options.
- iii. **Encourage homeownership and small business ownership:** The study found that most households in D/line neighborhoods are renters, with relatively low incomes. Encouraging homeownership and small business ownership can increase income levels and promote economic growth in the area. Policies such as mortgage and small business loans can be implemented to achieve this goal.
- iv. **Improve access to amenities:** The study also revealed that access to amenities, such as healthcare facilities, schools, and markets, significantly influences housing patterns. Therefore, it is recommended that the government improves access to these amenities in the area by building more healthcare facilities, schools, and markets.
- v. **Foster community development:** Community development programs that promote social cohesion, public participation, and community engagement can help improve the overall well-being of residents in D/line neighborhoods. Such programs can include community-led development initiatives, such as community gardens and cultural events, which can help promote social integration and community development.

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## 8.0 Conclusions

In conclusion, this study has shed light on the housing patterns and socioeconomic characteristics of residents in D/line neighborhoods in Port Harcourt, Nigeria. The literature review has highlighted the challenges of urbanization and housing in Nigeria, including housing shortages, inadequate infrastructure, and widening gaps in socioeconomic status. The study has identified factors such as amenities and transportation that significantly influence housing patterns in the area. The middle-income levels and high proportion of renters in D/line neighborhoods further emphasize the need for affordable housing programs and policies that promote economic growth. The government should prioritize investments in housing infrastructure and promote public-private partnerships to increase the supply of affordable and adequate housing. Additionally, policies that promote education and employment opportunities may increase household incomes and enable residents to access better housing options. Overall, this study provides valuable insights into the housing patterns and socio-economic characteristics of residents in the D/line neighborhood and underscores the importance of addressing the challenges of urban housing in Nigeria.

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