Effects of Urbanization on Housing for the Urban Poor in Port Harcourt City, Nigeria

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Abstract

The world is currently undergoing a rapid increase in population growth, hence the need for adequate provision of social and physical infrastructures in cities cannot be overemphasized. Closely associated with this population growth, is a very high demand for housing. Most urban centres are in a dilemma in terms of dealing with the housing need of its ever-growing population. This study is aimed at examining the effects of urbanization on housing for the urban poor in Port Harcourt city, Nigeria. It was observed that there are numerous challenges facing housing for the urban poor such as poor environmental condition, insecurity, low income and high cost of house rent in the urban area. The researchers made use of related concepts such as the concept of the environment, sustainable development and urbanization in other to meet the information requirements of the study. Stratified random sampling technique was adopted to avoid sampling bias. Primary data were gotten through the administering of closed-ended questionnaires. Pearson Product Moment Correlation analysis was used in testing the hypothesis to establish if there is any significant relationship. Findings of the research showed that the level of income and house rent are the major determinants of housing choice and the quality of urban housing in the study area are below standard. The study also revealed major problems associated with housing for the urban poor. The researchers ended with some recommendations to help address the challenges of urban poor housing, such as granting of tax waivers to those in the building material industry to enable the price of building materials to be reduced. It was further suggested that there should be a conscious effort aimed at developing rural areas to reduce the level of rural-urban migration.

Keywords: Housing, Insecurity, Occupancy rate, Port Harcourt, Sustainable, Urban poor

1 INTRODUCTION

Urbanization has been defined as the increased concentration of people in cities rather than in rural areas (UN-Habitat, 2006). Demographic Partitions (2013) describes urbanization as the "process by which towns and cities are formed and become larger as more people begin living and working in central areas". It is the gradual increase in the number of people living in urban areas, with a subsequent decrease in those living in rural areas (NLM, 2018). Urbanization is an ongoing trend in developed and developing countries. With particular reference to Nigeria, studies have shown that many urban centres have been experiencing rapid and continuous growth over the years, as people tend to migrate from rural areas to urban centres to better their living conditions. However,

there has been the inadequacy of the necessary infrastructures to meet the needs of the increasing urban populace. Empirical studies have also shown that about 75% of the urban settlers live in slums and improper housing, which is antithetical to human dignity (Jimoh et al., 2018).

Nigeria is the largest country in West Africa; classified as a low-middle income country even though it is the biggest oil exporter in Africa with the largest natural gas reserve in the continent. The Nigeria Gross Domestic Product (GDP) was $405.10 billion in 2016, $397.270 billion in 2018 (World Bank, 2018; Jimoh et al., 2018, NBS, 2018). However, the huge revenue derivable from oil and allied products has not positively impacted an average low-income earner in the country, as they live below 1 dollar per day. The impoverishment of the citizens has also been largely worsened by the corrupt and wasteful handling of petrol dollars by successive governments in the country. Simply put, the huge money made from oil remains a noticeable paradoxical contradiction when viewed against the prevailing endemic infrastructural deficit and abject poverty in the country (World Bank, 2018; Jimoh et al., 2018).

Housing, also referred to as shelter, is one of the three fundamental needs, and it forms an essential part of human settlement with great impact on the health, welfare, productivity and quality of life of man (Ibem and Amole, 2010; Amao, 2012; Olalekan, 2014). Researchers have shown that housing can affect mental and physical health, both positively and negatively (Amao and Ilesanmi, 2013; Jimoh et al., 2018); hence its provision for the people should be one of the primary concerns of every nation. The provision of adequate affordable housing for Nigerians will initiate a notable growth as it will provide shelter for the people and also, bring about lots of infrastructural development, thereby meeting some of the social needs of the populace. It will also generate an increase in the activities of the housing and building industry, thereby creating more job opportunities for both skilled and unskilled labour through the construction industry, resulting in increased productivity and a subsequent rise in the country's GDP; thus, improving its economic development.

A well-planned housing system will also promote environmental sustainability because the provision of adequate housing will go hand in hand with the provision of improved indoor air quality, potable water, good sanitation, sewage and waste management, improved and sustainable transportation network and consequent reduction in environmental pollution. This achievement would, overall, be a driver for the nation towards development in a sustainable way; indicating that housing has significant effects on most of the domains of sustainable development (Ibem and Amole, 2010; Amao, 2012; Olalekan, 2014).

There is no consensus definition of urban poor or urban poverty, but two broad complementary approaches are prevalent: economic and anthropological interpretations. Conventional economic definitions use income or consumption complemented by a range of other social indicators such as life expectancy, infant mortality, nutrition, the proportion of household budget spent on food, literacy, school enrolment rates, access to health clinics or drinking water, to classify poor groups against the common index of material welfare. Alternative interpretations developed largely by rural anthropologist and social planners expanded the meaning of poverty to encompass perceptions of non-material deprivation and social differentiation (Wratten, 1995; Satherthwaite, 2009).

The urban population in Nigeria has grown from 6.9 million, 15.4% of the total population of 45 million in 1960 to 99.9 million, which is 48.9% of the total population of 195.8 million (Dover,

2018). Around one-third of the urban population in developing countries-nearly one-billion people lives in slums. Between the year 2000 and 2010, the number of slum dwellers increased by six million every year, and more than 70 per cent of Africa's urban population lives in slums. The proportion of the sub-Saharan population living in slums was estimated to be 199,540,000 representing 61.7 per cent of the cities' inhabitants (UN-Habitat, 2007). However, the proportion of slum inhabitants in Nigeria in the year 2005 represents 60.1 per cent to 70 per cent of the total urban population of 63,969,000 (UN-Habitat, 2009). The resultant effects of these results are severe pressure on public infrastructure and services, severe housing shortage, high cost of accommodation where available, the formation of slums, shanty squatter settlements, environmental decay, inadequate access to education; health, and non-availability of government presence (Olalekan, 2014).

Port Harcourt city in Rivers State, Nigeria, which is the study area of this research work has witnessed rapid urban growth over time which is mostly due to natural increase, job opportunities from the oil boom of the 1970s, migration, improvement of transport and communication and the location of most multinational oil giants, (Wizor et al., 2009). Increased population concentration in the study area has resulted in several problems predominantly witnessed in most urban centres. It resulted in unplanned sprawl, environmental pollution, deterioration, deficiencies in modern basic facilities and general urban decay. The impact of rapid population growth on housing development in a developing economy is usually a consequence of the push factor of the rural areas and the pull factor of the urban areas (Wizor, 2014).

The National Urban Development Policy came into existence as a result of varied complexity created by the rapidly growing Nigerian towns and cities, with the population doubling in almost three to four decades, thereby over-stretching the existing facilities. Thus, with a growth rate of 2.8 per cent, Nigeria can be classified as a nation witnessing very high population growth. This has over time, resulted in overcrowding, increased pressure on infrastructural facilities and is intractably linked with urban decay. As expected, the visible and most obvious effect of this urbanization is the rapid deterioration of housing for the urban poor and living conditions. Port Harcourt has remained an important city since its founding because of its position as a Sea Port city (the second most important Port in the country) and as one of the only two railway terminals in the South-South and South-East Nigeria. In contemporary times, its importance has taken a different dimension. For instance, the city has become the headquarters of the oil and gas industry in the country as well as the commercial, educational political and administrative nerve centre of Rivers state. Interestingly, all these factors has led to an increase in population and pull of people from the rural areas to Port Harcourt city, (Obinna et al, 2010).

Many of the problems of urban poverty are rooted in the complexity of resources and capacity constraints, inadequate government policies at both the central and local level, and a lack of planning for urban growth and management. It is against this backdrop that this study focuses on analyzing the effects of urbanization on housing for the urban poor in Port Harcourt city, Nigeria.

II MATERIALS AND METHODS

In carrying out this study, data were derived from two major sources. The first is the primary source of data and the second is the secondary source of data. The primary data involves the first-hand information collected in the field by the researchers with the use of questionnaire, personal

interviews and field observation. A validated structured questionnaire was administered which contains questions related to the study problems, direct interviews were conducted with residents in the urban slums. The target population for this study comprises of all the slum settlements within the city, but due to the difficulties involved in studying the target population, (time and financial constraints), the study area was divided into three zones using stratified random sampling techniques. The basis of stratification is to get the subset of the population. From preliminary investigation, the three zones were found to consist of twenty sex (26) slums in all. The secondary data involves information collected from articles, books journals, and cartographic map of the study area. These data were used in comparing results and drawing conclusions. The tool for analyzing data is dependent on the hypothesis posed and the nature of data gotten from the field. Tables and percentages are used in the description of data. The statistical tool used to analyze the data is the correlation analysis test. Correlation is a statistical test that is used in establishing the relationship between two or more variables. Correlation does not imply cause and effect. It is used to determine the direction or relationship between variables. The relationship can be positive or negative. A relationship is positive when the variables are related in a similar direction, but when the relationship is diametrically opposite, then the relationship is negative. We use the correlation coefficient in explaining the degree or extent of the relationship. The coefficient ranges from -1 to 0 (negative) and 0 to +1 (positive). The nearer the coefficient to 0, the lower the relationship and the nearer the coefficient to 1, the higher the relationship. In this research work, the researchers made use of Pearson's Product Moment Correlation Analysis.

The formula for Pearson's Product Moment Correlation Analysis is given as follows:

$$r = \frac{n\Sigma xy - (\Sigma x)\,(\Sigma y)}{\sqrt{\left(\Sigma x^2 \frac{(\Sigma x)^2}{n}\right)\left(\Sigma y^{2-}(\Sigma y^2)\div n\ \right)}}$$

A decision is taken at 0.05 or 95% confidence level. The null hypothesis is rejected if the calculated value is higher than the table value, but if the table value is higher than the calculated value, the null hypothesis is accepted.

A. Study Area

The study area is Port Harcourt City Local Government Area of Rivers State, which is a coastal area within the southern part of Nigeria. Port Harcourt city lies within the Longitude 7°0'0" E and Latitude 4°46'30" N (Figure 1and 2). The area that became Port Harcourt in 1912 was farmlands of Diobu and Rebisi communities in the study area. The Port was built in 1912, but not given a name until August 1913, when the governor of Nigeria, Sir Fredrick Lugard, named it "Port Harcourt in honour of Lewis Vernon Harcourt, then the secretary of the state for the colonies. The colonial administration of Nigeria created the Port to export coal from the colonies of Enugu located 151 miles (243km) north of Port Harcourt, which was linked by a railway, called the Eastern Line, also built by the British colony. In 1956 crude oil was discovered in commercial quantities at Oloibiri, and Port Harcourt's economy became predominantly petroleum driven. The first shipment of Nigeria crude oil was exported through the city in 1958. The growth pole effect of the Nigerian petroleum industry, made Port Harcourt to further develop, with the aspect of

modernization such as overpasses and city block (Alagoa and Derefaka (2001). Oil firms that currently have offices in the city include Royal Dutch Shell, Chevron, Total E&P, Halliburton, etc.
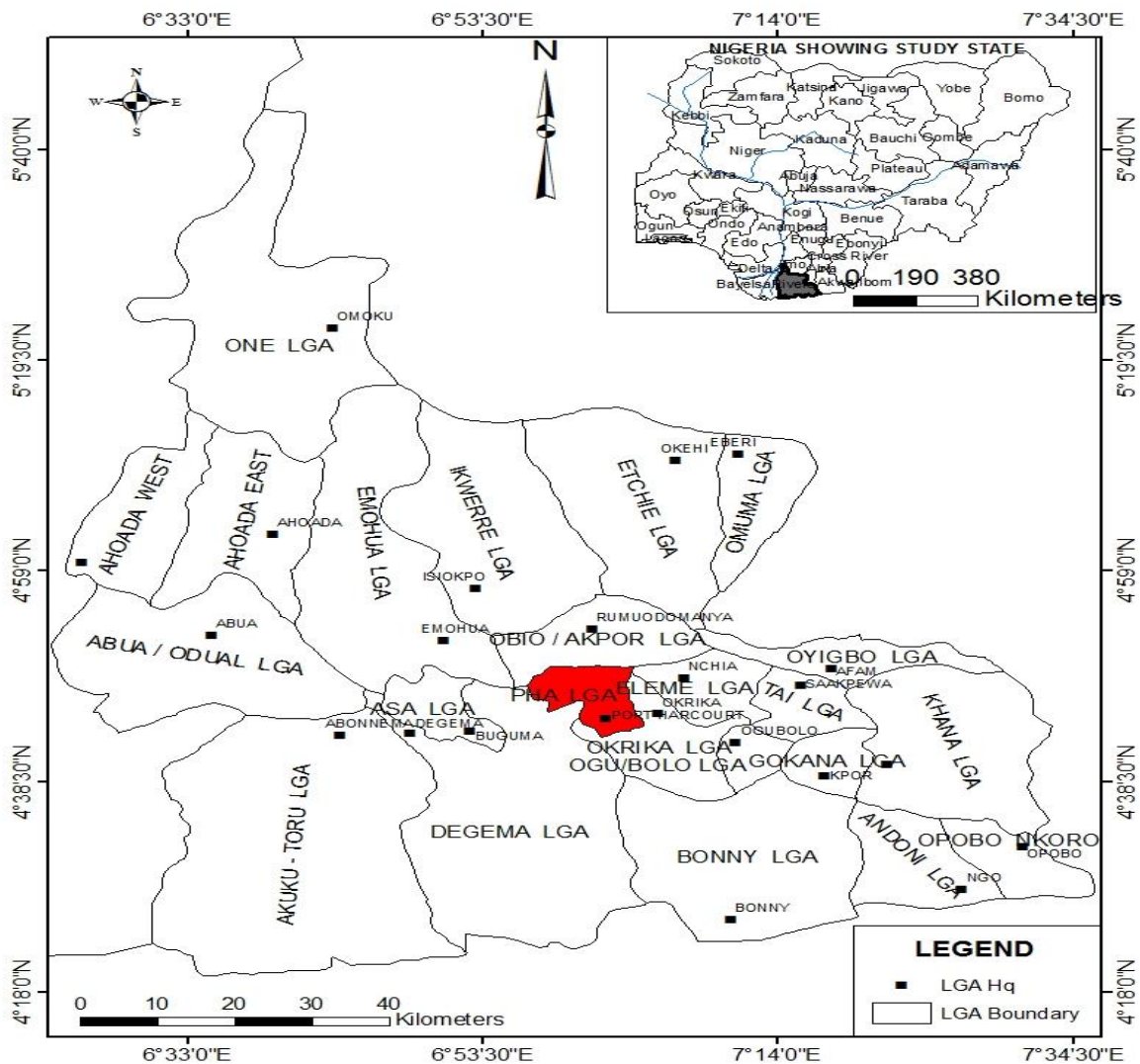

Figure 1 Rivers State Showing Port Harcourt LGA

Port Harcourt Local Government Area has a tropical climate with a mean yearly temperature of 30°c and yearly rainfall of 2000mm (NIMET, 2018). The area falls within the subequatorial climate belt and is marked by two distinct seasons, wet and dry season with 80% of annual rainfall between March to November and the dry season which last from December to March (Oyegun, 1999). Rain falls over a period of 10 months with its peak in July and September and with a little dry season that occurs in August (Oyegun, 1999). Humidity increases during the rainy season months of June-September and drops steadily and continuously till March. One important factor in the study area is that the beginning of the rainy seasons is associated with great heat, i.e. increase in temperature.

The landscape of Port Harcourt plains is crisscrossed by a maze of swamps, creeks and waterways. The land surface slopes gently (30-50) on average in NW-SE direction. The drainage of Port Harcourt Local Government is very poor, as a result of low relief, high water table and high relief. The low relief has resulted in gentle slopes, which makes the flow velocities of the River to be very low. (Izeogu&Aisuebogun, 1989). There are some major Rivers in this area which includes the Bonny River located south-west which is the largest river in the area with an average width of 0.5km. It begins its flow from the West towards the East before turning sharply to flow down to the South.
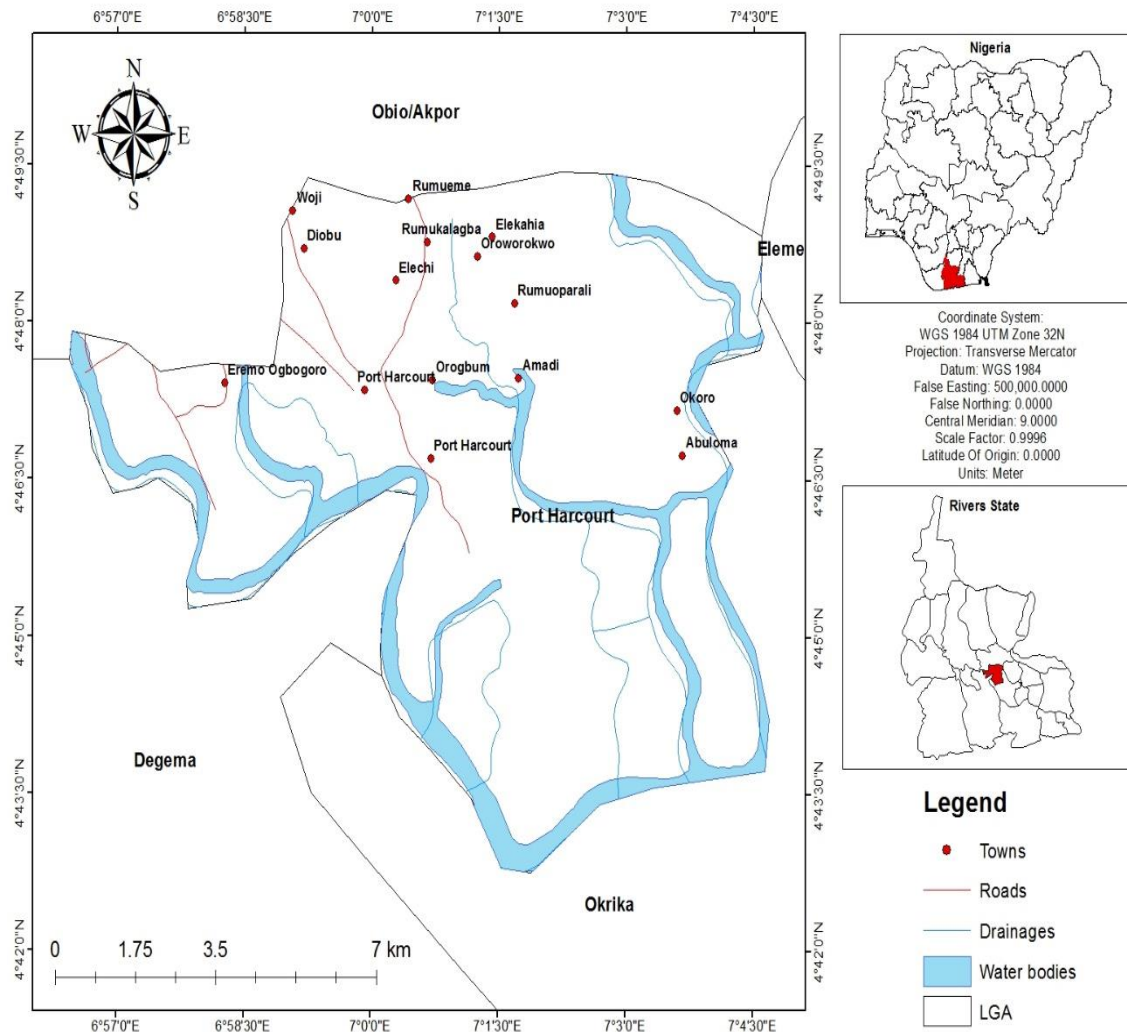

Figure 2 Port Harcourt City LGA

From the initial population of 5000 persons in 1913, the population has grown drastically. Okoye (1975) documented the population of the city as 7,185 in 1921, 15,201 in 1931 and 71, 625 in 1953. The 1963 census gave the city's population as 179,563 and in 1973 it was 213,443 (Ogionwo, 1979). The 1991 census fixed the population of Port Harcourt and Obio/Akpor Local Government Areas alone at 645,883. The projection for 1996 by the National Population Commission is 832,471 for the two local governments and the interim figures for the 2006 national census is over

one million (NPC, 2006). The current population status is estimated to be over 1,947,000 at an annual growth rate of about 3.5.

Spatially too, Port Harcourt city has grown to cover much of the Upper Bonny River Basin. Originally the city covered a 25 km2 area between the UTC junction and the New Layout Market. In the land use and vegetation map of Nigeria (1975/76), the built-up area of Port Harcourt covered 17.4km2. Twenty years later, a similar map showed the extent of the city as 89.4km2. This is a five-fold increase.

III DISCUSSION OF FINDINGS

A. General Socio-Economic Characteristics of Respondents

In this section information on the sex of respondents, occupation, educational level, age and income levels were analyzed.

Table 1: Response to Sex Distribution

Sex	Frequency	Percentage (%)
Male	65	43
Female	85	57
Total	150	100

Source: Authors' Fieldwork, 2019

Based on table 1, it can be deduced that the majority of the respondents were females. Out of the 150 questionnaires administered, a total of 65 questionnaires were answered by males and 85 questionnaires were answered by females. This can be as a result of the fact that the questionnaires were administered during the day when more males were likely to be at their place of work.

Table 2: Age Distribution of Respondents

Age	Frequency	Percentage (%)
Below 20 Years	45	30
20-40 Years	57	38
41-60 Years	30	20
Above 60 Years	18	12
Total	150	100

Source: Authors' Fieldwork, 2019

The greater number of respondents based on table 2 were young men and women between the age of 20-40 years which accounted for 38%. Respondents below 20 years were 30% while 20% were between 40-60 years and l2% were 60 years of age and above.

Table 3: Response to Marital Status

Status	Frequency	Percentage (%)
Single	60	40
Married	43	29
Divorced	37	25
Widow/Widower	10	6
Total	150	100

Source: Authors' Fieldwork, 2019

Table 3 showed that majority of the respondents were single. 40% were single, 29% were married, 25% divorced and 6% were widowed. The high percentage of single can be as a result of the push factor of rural-urban migration, with a predominantly youthful population. This is because the younger age brackets are more mobile in terms of moving from one place to the other. When these young men and women migrate to the city intending to seek greener pasture, a greater number of them get disappointed leading to inability to get good accommodation. When this situation arises, the next option is to settle in the urban slums or shanty neighbourhoods.

Table 4: Occupational Distribution

Status	Frequency	Percentage (%)
Civil Service	30	20
Self Employed	37	24.7
Unemployed	57	38
Touting	15	10
Fishing	11	7.3
Total	150	100

Source: Authors' Fieldwork, 2019

Table 4 showed that none of the respondents works in the private sector. This may be because the private sector offers a better incentive to their workers when compared to the public sector, which placed them in a vantage position of securing better accommodation in the city.

Those that are unemployed had a greater percentage amongst the sampled respondents (38%). The likely implication of this, is that majority of the unemployed populace in the city are attracted to these areas (slums) because they are very affordable; in most cases, they construct a makeshift apartment with woods and avoid the financial stress of paying rent. It was also discovered that due to the high presence of able-bodied men in the area, those that are involved in touting as a means of survival was relatively higher than those involved in fishing, thereby making brute force a predominant allocative mechanism within the areas sampled.

Table 5: Response to Levels of Education

Educational level	Frequency	Percentage (%)
Primary	25	17
Secondary	40	26
Tertiary	60	40
Non formal education	25	17
Total	150	100

Source: Authors' Fieldwork, 2019

Table 5 revealed that none of the respondents was uneducated; this might be because those that were uneducated tactfully avoided receiving the questionnaire from the researchers. Those whose highest level of education was tertiary had the highest percentage with 40%, while secondary education had 26%, and primary and non-formal education had 17% each.

Table 6: Estimated Monthly Income in Naira

Income levels (N)	Frequency	Percentage (%)
Below 20,000	70	47
21,000 – 50,000	40	27
51,000 – 80,000	35	23

| 81,000 – 120,000 | 5 | 3 |
| Total | 150 | 100 |

Source: Authors' Fieldwork, 2019

Table 6 clearly showed that there is a high level of very low-income earners, with an estimated income of fewer than 20,000.00 nairas within the sampled area which makes up 47% of the entire respondents sampled. The respondents with an income level of 21,000.00 naira -50,000.00 nairas accounted for 27% of the sampled area, while respondents with an income of 51,000.00 naira-80,00000 naira accounted for 23% of the sampled area. Finally, the highest income earners within the sampled area had the lowest value of 3%. This buttresses the fact that there is an inverse relationship between income earned and the population of the sampled area.

The implication of this is that people tend to relocate from these urban slum settlements with increased income, and that is why only a few of the high-income earners were found within the sampled area. On the other hand, people tend to relocate to the sampled areas with decreased income, which accounts for why the low incomes earners were more in population within the sampled area.

B. Type of Apartment and Occupancy Rate

This section critically examined the types of apartment and occupancy rate in the study area. Thus, distinctions were made between houses made of wood, blockhouses, single room, a block of flats as well as the number of persons per household

Table 7: Type of Apartment of Respondents

Apartment	Frequency	Percentage (%)
Houses made of wood	70	60
Block house	30	13
Block of flats	15	7
Single rooms	35	20
Total	150	100

Source: Authors' Fieldwork, 2019

Table 7 indicated that majority of the respondents lived in wooden houses which accounted for 60% of the population sampled; this may be because wooden houses (also known as Batcher in local parlance) are cheaper to build when compared to blockhouses. The data also showed that respondents living in single rooms are more than those living in a block of flats. This may likely be as a result of the high percentage of respondents that are single (see table 3). The number of blockhouses in the sampled area is relatively small when compared to the wooden houses. This is because the income level of the respondents is a determinant factor in terms of their choice of apartment, and since the majority of the respondents fall in the class of the low-income earners, living in blockhouses becomes very expensive for them.

Table 8: Number of Persons in a Household

Occupancy Rate	Frequency	Percentage (%)
2 – 5	90	60
6 – 10	37	25
11 – 15	15	10
Above 15	8	5

Total	150	100

Source: Authors' Fieldwork, 2019

Table 8 revealed that majority of the respondents in the study area lives in a household range of 2-5 persons, which accounted for 60% of the entire population sampled. Respondents living within the range of 6-10 persons in a household accounted for 25%, while 11-15 persons in a household accounted for 10%. 15 persons and above in a household accounted for only 5%. This clearly shows that most of the apartments are congested with its attendant health risks.

C. Urban Poor Housing Problems in Port Harcourt City

This section of the survey focused on major problems associated with slum accommodation in Port Harcourt city. To identify major problems associated with housing for the urban poor in the study area some questions were asked and they are presented in table 9 below.

Table 9: Problems Associated with Housing for the Urban Poor

Problems	Frequency	Percentage (%)
Dirty environment	70	47
Poor power supply	25	16
Insecurity	40	27
Lack of social amenities	15	10
Total	150	100

Source: Authors' Fieldwork, 2019

Table 9 showed that the major problem associated with the sampled area is poor environmental standard which accounted for 47% of the problems identified by the researchers. Insecurity was also a major challenge facing the sampled area, it accounted for 27% of the problems identified. It was also discovered that power supply was epileptic in the sampled area which accounted for 16% and finally there was a lack of social amenities such as potable water supply, schools and good internal road network.

D. Determinants of Urban Poor Housing Choice in Port Harcourt City

To find out the determinants of housing choice for the urban poor in Port Harcourt city, the researchers asked the respondents some questions which are presented in table 10 below.

Table 10: Determinant of Housing Choice by the Urban Poor

The Determinant of Housing Choice	Frequency	Percentage (%)
Personal Desire	17	11.3
High Rent in other Neighbourhoods	50	33.3
Low income	80	53.3
Personal Choice	3	2
Total	150	100

Source: Authors' Fieldwork, 2019

Table 10 showed that low income is the major determinant of housing choice for the urban poor in Port Harcourt city, which accounted for 53.3%. The data also showed that high rent in other livable neighbourhoods also determined the choice of respondents which accounted for 33.3% of the sampled respondents. Most of the respondents would have loved to live in a better place within

the city, but the high rent of such areas of the city is a major inhibitor and that is why they decided to look for a cheaper option.

Finally, it was also discovered that some respondents decided to live in the sampled area not as a result of low income or the attraction of cheaper rent, but on a personal desire to live in the slum settlements. The researchers tried to investigate why but the respondents declined, stating personal reasons.

E. Quality of Urban Poor Housing in Port Harcourt City

This section investigated the quality of urban poor housing in Port Harcourt city, which has to do with the building and the materials used in constructing them. Table 11 below explains further.

Table 11: Quality of Urban Poor Building in the Study Area

Building	Frequency	Percentage (%)
Building with toilet, kitchen and bathroom	30	20
Without toilet, bathroom and kitchen	70	46
Building built with wood	45	30
Building built with block and aluminum zinc	5	4
Total	150	100

Source: Authors' Fieldwork, 2019

From table 11, it can be seen that the majority of the buildings were without toilet, bathroom and kitchen which accounted for 46%. Houses made of wood were more when compared with the houses made of block. Those made of wood accounted for 30% while those made of blocks accounted for just 4%.

The above result implies that the buildings in the sampled area were below standard, which is the major reason why the house rent in the sampled area is very low.

F. Hypothesis Testing

H1: There is a significant relationship between income of urban poor residents and the choice of urban poor house/neighbourhood.

Table 10: Pearson's Product Moment Correlation Analysis of the Income and Choice of
        Urban Poor House of the Sampled Respondents

Income (x)	Choice of house (y)	XY	X2	Y2
70	50	3500	4900	2500
40	80	3200	1600	6400
35	5	175	1225	25
5	15	75	25	225
150	150	6950	7750	9150

Calculated value for r = 0.008
Calculated t = 0.0113

G. Decision Rule

Since the r-value is close to 0 it means that the relationship is negative and low.

The T-test value against 2 degrees of freedom at 0.05 level of significance is 4.30, and the calculated value of 0.0113 is less than the critical table value of 4.30. The researchers, therefore, accept the alternative hypothesis which states that there is a significant relationship between income of urban poor residents and the choice of urban poor house/neighbourhood. Based on the above analysis the researchers were able to prove that there is a relationship between the income level of the urban poor and choice of urban poor housing. Although this relationship is negative which implies that the relationship is low but significant enough.

IV. CONCLUSION AND RECOMMENDATIONS

Evidence from the study has shown that the major problem associated with the housing for the urban poor in Port Harcourt city was a dirty environment and insecurity. Respondents living within the sampled environment are likely to be exposed to some harmful diseases and constant molestation from touts within the area. It was further observed that the majority of the houses within the sampled area were below standard due to lack of facilities such as toilets, bathrooms, kitchen, pipe bourn water and power supply. The findings of this research are consistent with the findings of Amao (2012).

It has been established that the high population that accompanies urbanization, makes the demand for houses to be very high, thereby making house rents to be very exorbitant for a majority of the urban poor to afford due to low income. This singular fact gives credence to the fact that there is a significant relationship between income and choice of housing for the urban poor. The research further showed that the majority of the houses are made of wood and has high occupancy rates leading to congestion with its attendant health risks in these urban slums.

Accordingly, the study recommends that the government should speedily develop the rural areas in the state to reduce the rapid rural-urban migration noticeable in the city of Port Harcourt which will, in the long run, reduce the congestion of the city centre. The slums in the city should be reclaimed by the government to build low-cost housing units with basic facilities for the urban poor. Finally, tax waivers should be granted to those in the building material industries, to force them to bring down the price of building materials which will make the construction of houses cheaper and affordable for both the rich and the urban poor.

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