

Participation of public-private partnership in housing provision in the core areas of Akure, Ondo State, Nigeria

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ABSTRACT

Private-Public partnership (PPP) is a new paradigm in the development arena that involves collaborative working arrangements between the public, profit and non-profit private sectors in providing public services hitherto provided solely by the sector. This study carried out research on the impact of participation of Private-Public partnership (PPP) in housing provision in the core area of Akure with a view to suggesting effective measures to promote housing development and delivery in the study area. It examined the socioeconomic characteristics of the residents, investigated the illegal dumpsites in the area, examined the system of waste disposal and management in the area, and identified the effect of illegal dumpsites on residents and the environment and possible measures to improve waste management in the area were suggested. Using simple random sampling techniques, Questionnaire was used to gather primary data from 181 respondents and an interview guild with the Director of works and housing in the Ministry of Works and Housing, Akure South Local Authority (Ondo State). Akure was interviewed on the operations of the public estate. It was gathered that the majority of the resident were female with at least a secondary school certification. The Public-Private housing schemes were not designed for the low-income class. Untarred roads, irregular electricity supply, and high cost of housing units amongst others were the challenges encountered by residents in the study areas. It was recommended that Community Based organization approach and Mortgage housing scheme should be introduced in the PPP housing schemes in the areas in order to achieve a maximum result in the housing provision business amongst others.

Keywords: Participation, public, private, housing, provision.

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INTRODUCTION

Background to the study

Olotuah (2005) opined that housing constitutes not only a basic human need but also a vital component of man's welfare, life sustenance and overall survival. He also stated that the expectation then is for housing to satisfy the shelter needs of people in a comfortable manner where the basic facility is enjoyed. Furthermore,

adequate housing provision has therefore always drawn the attention of the government of any state being one of the most important basic needs of mankind impacting on man's health and well-being, productivity and consequently economic growth on a large scale.

There is a need for a lot more housing units in the state and government budgetary allowances are largely insufficient to keep pace with the ever-increasing housing needs of the people; while due to many macro-economic considerations, the housing may not be too attractive to commercial banks in Nigeria (Olotuah, 2005). Ibem (2011a), asserted that governments have found partnerships with the private sector, an attractive alternative to increase and improve the provision of housing targeted at meeting the increasing demand for housing by the citizens. He further explained that private investments through a network of contract agreements, widely known under the term Public-Private Partnership (PPP) have therefore emerged as one of the options and strategies considered in financing housing projects in many Nigerian states.

As urban housing, economic and environmental crises continue to escalate unabated; major reforms are taking place in the urban housing market in many developing countries. In Nigeria, one such reform was an attempt to boost the performance of public-sector housing through the transfer of some responsibilities for public housing provision from governments to private sector through Public-Private Partnerships organizations (Enisan, 2019).

Private-Public partnership (PPP) is a new paradigm in the development arena that involves collaborative working arrangements between the public, profit and nonprofit private sectors in providing public services hitherto provided solely by the sector (Brown, 2006). Private-Public Partnership (PPP) in housing is another form of privatization in which the provision of social services and infrastructure is contracted out to private sector organizations (World Bank, 2006; Enisan, 2019).

Ibem and Amole (2010), Opined that government intervention in the housing market through the provider approach in the last few decades had not contributed significantly to addressing the urban housing shortage across states in Nigeria due to under-investment, corruption and institutional failures, and the need for urban housing grew alarmingly, especially among the urban poor and low-income earners. Ilechukwu (2010), holds the view that the urban housing crisis in Nigeria has escalated to the extent that the urban housing supply has not kept pace with its demand, and as a result, the cost of housing rising beyond the reach of an average urban dweller in Nigeria. Furthermore, he said the public sector's failure in housing provision of not living up to many Nigerians' expectations prompted Nigeria's Federal Government to launch the New National Housing and Urban Development Policy (NNHUDP) in 2002, so this policy was intended to provide the legal framework that would enable both the government and private sector to collaborate in public housing in Nigeria.

Ibem (2011a), observed that there was a significant shift of emphasis from the private sector to the enablement approach and signaled the commencement of housing sector reform in Nigeria. He also stated that among other things, the housing reform was instrumental to the establishment of the Real Estate Developers Association of Nigeria (REDAN), Building Materials Producers Association of Nigeria (BUMPAN), the reduction of interest rates on national housing fund loans to members of REDAN and expansion of the housing finance sub-sector to include the introduction of the secondary mortgage market.

Private-Public Partnership (PPP) as an alternative to the government provider approach is based on the notion that it promotes multiple stakeholders' participation in the provision of critical infrastructure, leading to a reduction in governments' expenditure and encouraging efficient use of resources for improved service delivery at an affordable cost (Klijn and Koppenjan, 2000). According to Jamali (2004), these apparent merits have prompted key international financial institutions, including the World Bank and International Monetary Fund, to mount pressure on many developing countries to shift emphasis from state provision to liberalization and privatization of service provision.

The New National Housing and Urban Development Policy (NNHUDP) in 2002 seeks to ensure that all Nigerians have access to decent, safe and sanitary housing at an affordable cost through private sectored initiatives (llechukwu, 2010). This policy recognizes that partnerships between the public and private sectors are a critical means of encouraging the private sector to address the increasing urban housing crisis in Nigeria actively. Partnerships which are in different forms and collectively referred as Public-Private to Partnerships(PPPs) generally represent a wide range of institutional arrangements between public and private sectors in sharing responsibilities, benefits and risks in housing, infrastructure and service provision (UN-HABITAT, 2006b; Ibem, 2011a, 2011b). In housing provision, PPP has gained ground in recent times on the premise that it promotes multi-stakeholders participation, enhances the productivity of public-sector housing and reduces housing affordability challenges (UN-HABITAT 2006b; Shelter Afrique, 2008).

Statement of the research problem

The United Nations records that about 3 billion of the world's population lives in urban areas (UNCHS, 2007). While continents like Europe and America have been able to stabilize the population to some extent, Continents like Africa and Asia are recording high rural-urban migration (Ibem, 2011a).

In Nigeria, a study conducted by Ibem (2011a) reveals that the proportion of the Nigerian population living in urban centers has increased remarkably over the years. The study recorded that 7% of Nigeria lived in urban centers in the 1930s, 10% in 1950, 20% in the 1970s, 27% in the 1980s, 35% in 1990 and 40% now live in urban centres of varying sizes. Nigeria's population is estimated at 141 million in 2005 and is predicted to grow to 285 million by 2050 hence placing Nigeria as the 6th most populated country in the world.

According to United Nation Development Programme (UNDP, 2005), the demand for housing and the budgetary constraints in several developing and developed societies have led the government to look for new ways of achieving adequate accommodation or housing. The option which most governments have adopted is by establishing a partnership with the private sector which is referred to as Public Private Partnership (PPP). Furthermore, they stated that since the adoption of PPP in the housing sector in the early 1990s, almost all countries around the world have witnessed some form of Private-Public Partnership (PPP) investment in the provision of housing and urban infrastructure.

The UNCHS (Habitat, 2007), reveals that in Nigeria, evidence from very few studies suggests that statemarket partnership is the key variant of Private-Public Partnership and that a more significant percentage of housing units so far provided in Private-Public Partnership housing schemes were targeted mainly at high-income earners, with little or no attention on the lowincome earners coupled with the monumental failure of the government provider approach to address the increasing shortage of urban housing and the rising cost of housing beyond the reach of most low-income urban residents Nigeria. They also opined that the need to fulfill the demand for other public services such as water, electricity and basic sanitation competes for the limited resources at the government's disposal and the housing situation has been exacerbated by the long list of people in the waiting queues for housing who are tired from many years of waiting to be allocated houses.

According to Ibem (2011a), the lack of public sector capacity, and limited resources available to deal with affordable housing needs, creates the need to involve the private sector in public service delivery and this would be to share investment risks and utilize their human, technical, and capital resources to close the gap between increasing demand and the available supply of affordable housing.

There is, therefore, the need to consider participation between the two major players in the housing sector which are the public and private sectors in the study area.

Aim and objectives of the study

Aim

The aim of this study is to access the participation of public-private partnerships in housing provision in core areas of Akure, Ondo state with a view to suggest effective measures to promote housing development and delivery in the study area.

Objectives of the study

In order to achieve the aim of the study, the following objectives are focused on. These are to:

1. Examine the socio-economic characteristics of residents in the study area;

2. Examine the state of housing features in the study area;

3. Assess the participation of public partnership in housing in the study area;

4. Assess the participation of private partnerships in housing in the study area;

5. To analyze the planning effects of public-private partnerships on housing provision in the study area.

Research questions

Based on the aim of this research, there is a need to provide answers to some important questions. These questions are:

1. What are the socio-economic characteristics of residents in the study area?

2. What is the state of housing provision in the study area?

3. What are the roles of public partnerships in housing in the study area?

4. What are the roles of private partnerships in housing in the study area?

5. What are the planning effects of public-private partnerships on housing provision?

Justification for the study

According to Olotuah, (2005), Housing can be regarded as an economic good, a social product or a fundamental human right and it is apparent that it touches each and every individual in a very intimate way. Housing means many things to many people; several authors view housing as a process and activity by which shelter is provided and part of the human settlement fabrics that can facilitate everyday life and enduring well-being. Adequate housing contributes to attaining the nation's physical and moral health and stimulates social stability, work efficiency, and individual development (Bello and Bello, 2005).

Significantly, good quality housing provides the foundation for stable communities and social inclusion. Previous research has established that a positive correlation exists between the quality of life and the comfort, convenience and visual appeal of housing. Good quality housing is, therefore, essential to living a

sustainable life. It ensures people's safety and well-being and promotes beauty, convenience, and aesthetics in the overall built-up environment (UN-Habitat 2006b).

Bello and Bello (2005) highlighted some reasons for the failure of housing provision in Nigeria, some of which are excessive reliance on owner occupation, government involvement in direct construction of housing, fragmented and unstable housing finance, and high cost of building materials among others. From the above, however, it can be deduced that various housing provisions in Nigeria have failed to achieve the purposes for which they were formulated. This is in recognition of the government provider approach's monumental failure to address the increasing shortage of urban housing and the rising cost of housing beyond the reach of most low-income urban residents in this country.

The failure of the housing provision in Nigeria leads to the adoption of Public-Private Partnership (PPP) for National Housing delivery. Public-Private Partnership (PPP), according to Olotuah (2005), explains the relationship between government agencies and private or nonprofit contractors that should be formed when dealing with services or products of the highest complexity. Olotuah (2005)after identifying Public-Private Partnership (PPP) as Private Sector Participation (PSP) or Private Finance Initiative (PFI) describes PPP as a spectrum of possible relationships between the public and private actors for the cooperative provision of infrastructure services. The policy of PPP in the National Housing Delivery is expected to achieve the desired result as it was said by Shelter Afrique (2008) that it has perfectly worked in the developed countries of the world. It is against this backdrop that this study sets out to assess the roles of public-private partnerships in housing development in the study area.

Scope of the study

This study is exclusively geared towards evolving sustainable housing through public-private the partnership. The scope of the study is limited to assessing the participation of public-private partnerships in housing provision with the view to examining the socioeconomic characteristics of residents. It will examine the state of housing features in the selected study area. It will also assess the role of public partnership in housing provision as well as the private partnership in housing provision in the selected study area with the view of suggesting effective measures to address various problems investigated within the study area.

The study is carried out by selecting three (6) residential estates across the residential development corridors in the core area of Akure. These are Sunshine garden estate along Oba-ile road, Zion estate along Akure- Ilesha Express Way, Orita-Obele housing estate

along Akure-Ijare road, Afunbiowo housing estate along Ilodo road, Okuta-Elerinla housing estate along Oba Adesida road and HOB housing estate along Federal secretariat, Akure for a sample survey. The six estates were chosen because they have peculiar characteristics from the other estates along their corridor. These include development patterns; socio-economic characteristics; the age of development; locational characteristics; among others. These estates were chosen using the simple random sampling technique. The questionnaires were administered systematically to household heads in the selected residential estates.

The scope of the study covers the selected residential corridors which cover the public sector intervention and private sector participation in housing provision. The research seeks the public sector's intervention in terms of the provision of infrastructure and basic services and land assembly, while the private sector participation involves the provision of housing finance and housing units.

Study area

Geographical location

Akure became the capital of Ondo State in 1976. It lies on latitude 70 5' North of the Equator and longitude 50 15' East of the Greenwich Meridian. It is about 370m above sea level and is situated within a 48-km radius of major towns in Ondo State, following Ondo to the South, Owo to the East and lju/Itaogbolu to the North.

Composition of the land use in the core areas of Akure

The total area of land in the study area is 5.66 Ha. The following entails how the different land use occupied spaces.

- **Residential land use:** This occupies an area of 2.91 Ha which is 52.8%
- Commercial land use: This covers an area of 0.72 Ha which is 12.2%
- Circulation land use: This occupies a total land area of 1.86 Ha which is 32.4%
- **Open spaces:** This covers a total area of 0.17 Ha and is 2.6%

Climate

Akure by virtue of its location enjoys a tropical humid climate with distinct wet and dry seasons associated with the prevalence of the moist maritime south-westerly monsoon winds (from the Atlantic Ocean) and the continental north-easterly harmattan winds from the Sahara deserts respectively. This made the area to be a consistently cloud-prone region, which makes it difficult to use Quick Bird, SPOT and IKONOS with high and medium-resolution satellite images. Thus the need to use a low satellite resolution image of Landsat MMS, TM and ETM becomes imperative for the study.

Topography

The topography of Akure is fairly uniform except for some

rock domes which dot the whole landscape in no uniform way. But the terrain becomes more rugged to the southwest around the Idanre district. Ijare is one of the peripheral towns in the North-west, around Iju-Itaogbolu towards the north. The soil varies from sandy clay in the north to loamy clay in the south. Akure terrain is bisected by numerous streams the most important of which is the Ala stream, which during the rainy season carries heavy floods. Ala with its numerous tributes drains the northern section of Akure. (Figures 1 to 3)

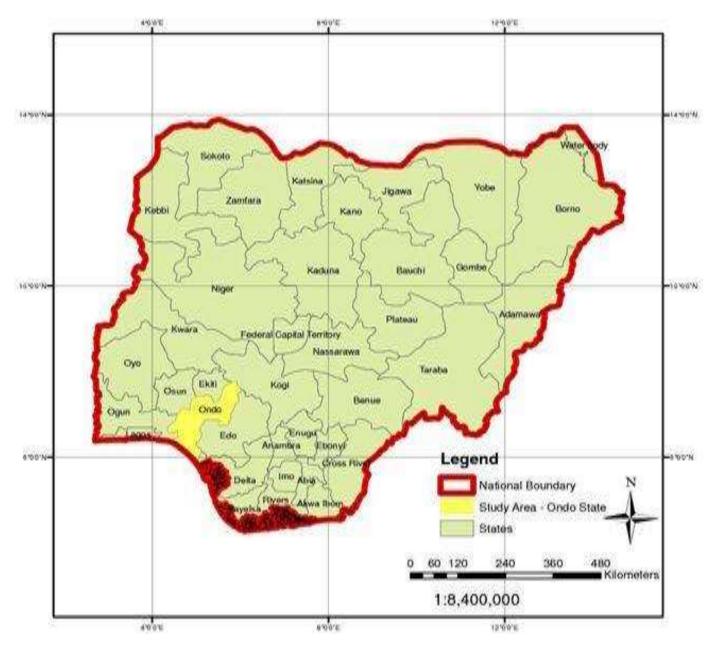


Figure 1. Map of Nigeria indicating Ondo state. Source: ESRI GIS digitized by author, 2021.

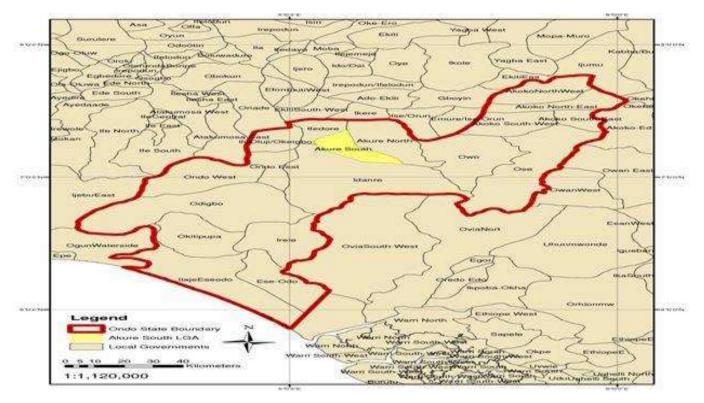


Figure 2. Map of Ondo state indicating Akure South Local Government Area. Source: ESRI GIS digitized by author, 2021.

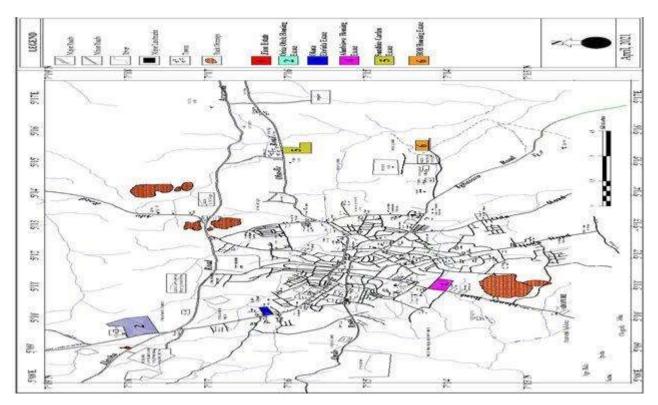


Figure 3. Map showing the selected six (6) Residential Estates in Akure. Source: Ondo State Ministry of Housing and Urban Development, 2021; Authors' Digitization, 2021.

MATERIALS AND METHODS

Research methodology is a tool that provides scaffolding structures for the validation, proper analysis and interpretation of data towards guiding a researcher in the realization of the set goal and objectives. It is also defined as the various process, procedures, principles, methods and instrumentalities through which data and information are sourced, specified, defined, collected, processed and analysed for an effective result (Fasakin, 2006). The chapter comprises the population, sample frame, sample size, sampling techniques, data collection instruments, questionnaire design and techniques for data presentation and analysis of the research findings.

The methodology does not only reveal the scientific approach of research, but it also provides a platform for validation, proper interpretation, analysis and forms the basis of an acceptable conclusion.

RESEARCH DESIGN

In any research, after a proper definition of the problem(s), the next step is to map out the series of actions or steps to carry out field research in order to achieve the aim and objectives of the research. This research is not experimental research but survey research in which the observation method was employed. Also, another source of gathering information that is employed is the conducting of a personal interview with residents in the study area. In addition, questionnaires which are major close-ended questions are administered to two categories of respondents that are considered necessary for this study to their opinions. The two categories of respondents are the residents and the community leaders in the area in the attempt to execute the following study objectives:

The required analysis is performed and the final conclusions of the research and recommendations were then drafted. A report to communicate these is then amassed.

Sources of data collection

The two major sources of data collection methods were used:

- 1. Primary source of data collection
- 2. Secondary source of data collection

Primary sources

The primary source of data collection involves going to the field to collect raw data which have not been processed or collected before. Data was collected through questionnaires, personal observation and site visitation to the study area. These questionnaires were used to solicit information on the socio-economic characteristics of the residents of the study area and formulated to cover specific objectives related to the study topic. Additionally, photographs were taken to show the visual representation of the information obtained.

Secondary sources

Secondary data will be used to supplement the direct interviews and personal observation data. The secondary sources of data collection refer to already collected, processed, analyzed, sometimes interpreted and reconstructed data by other researchers, some of those which are usually presented in tables, diagrams, figures and charts. Others include textbooks, extracts from newspapers, journals, reports and monographs.

Research population

Research population is the sum of respondents that comprises a population or universe. The population of the study consists of housing infrastructures, residential buildings, residents and estate managers of the selected residential estate along the residential corridors in the core area of Akure (Table 1).

Akure, the state capital of Ondo lies in the southwestern part of Nigeria with a longitude and latitude 7.2500°N, 5.1950°E. The state is experiencing rapid growth and concentration of people. The population of the city grew from 38,852 in 1952. Its population was estimated to be 112,850 in 1980 and 157,947 in 1990. The 1991 national population census however put the population of Akure at 253,365; the report of the census in 2006 final result was 387,087. Using population projection by the National Population Commission which is 3.2%. At present, the city is estimated to habitat of 432,950 people using the population projection formula below which goes thus:

 $P_2 = p_1(1+r)^n$

r = Growth Rate n = Projected Year p = Base Year Population $P_2 = Population Projection$

Sample frame

This is analyzed data that contains the record of the total

Corridor label	Name of corridor	Location	No of layouts
Α.	Obele-Ireakari	Ijare Road	33
В.	Odanikin-Ajimokun	Irese Road	12
C.	Ughele-Emure Camp	Ado/Owo Road	33
D.	Adesida-Oodo	Igbatoro Road	3
E.	Oladigbo-Jigba	Oda Road	136
F.	Asafinrin-Isafinrin	Idanre Road	192
G.	Fagbamila-YeostaAlphine	Ondo Road	92
Н.	OkeOgba-Ogunleye Oladogba	Agagu Road	3
Ι.	llupeju-Ifelere	Awule Road	103
J.	Alaba-Apatapiti	FUTA Road	6
К.	Zion-Wesco	llesa Road	180
	Total		787

Table 1. Residential development corridors in Akure.

Source: Author's Field Work, 2021.

members of an object or population from which a sample size can be drawn from the Ministry of Works and Housing (Akure South LGA). For the purpose of this study, HOB housing estate adjacent Federal secretariat with 139 housing units, Sunshine Garden Estate in Oba Ile Airport road with 232 housing units, ZION estate along FUTA road with 33 housing units, Afunbiowo housing estate in Ilado road with 952 housing units, Okuta Elerinla housing scheme along llesha garage road with 177 housing units and Orita Obele housing estate along Akure-Ijare road with 1689 housing units will be used to represent the population of residents in the study area which will be used as the sampling frame. A total of 3,222 housing units in the six selected residential estates were captured. As derived from the Nigeria Demographic and Health Survey (2013), the average household size in Nigeria was estimated at five persons per family (Ppf), which was adopted for this study. Considering the above assertions; there are approximately 16,100 people for the study.

Sampling techniques

The sampling method chosen for this study is the systematic random sampling technique. This will involve the selection of houses without bias. A simple random technique aimed at eliminating bias in the choice of respondents or items and purposeful sampling techniques will be used to administer interviews to the estate managers.

Sample size

In this study, samples were drawn from the household

population in the selected estates (Table 2). Hence, 0.8% of the household amounting to 181 respondents from an estimated household population of 16,100 represents the sample size for this study. The total sample of 161 cases is considered reasonable given the sample size of 5% of the 3,222 buildings population (enumerated) and household population of 16,100 in the study area. The justification for the 0.8% was appropriate bearing in mind the relative similarities in the characteristic of the households (cultural composition. socio-economic classifications and physical layout characteristics), the homogeneous nature of the research case and in order to avoid repetition among other factors. The household heads of each residential building will be the target of this research. For each estate, the first house will be picked at random while the others were picked systematically at an interval of 5 until the required sample is obtained for each estate in the study area.

Data collection instrument

The research instruments to be used are:

Questionnaires

Questionnaires are administered to the target respondents with each questionnaire formulated to cover specific objectives related to the study topic. Some questionnaires are mailed to respondents who are expected to read and understand the questions and write down their replies in the space meant for the purpose of the questionnaire itself. The respondents are to answer the questions on their own. This method became the most favorable in circumstances where some Table 2. Sample size across corridors.

Residential Estate	Location	Ownership of estate	No. of buildings	Estimated no. of Household CPF/5PPF	0.8% samples of household
Zion Estate	FUTA Road	Private	33	165	2
Orita-Obele Housing Estate	Akure-Ijare Road	Private	1689	8445	68
Afunbiowo Housing Estate	Ilado Road	Government	952	4790	38
Okuta-Elerinla Housing Estate	Oba Adeshida Road	Government	177	885	7
Sunshine Garden Estate	Oba lle Road	Private/Government	232	1160	9
HOB Housing Estate	Adjacent Federal Secretariat	Private/Government	139	695	57
Total			3,222	16,100	181

Note: Current population figure (CPF), Population per family (PPF). Source: Author's Field Survey, 2021.

respondents lack time to conduct an interview.

Semi-structured interviews

Semi-structured interview technique was conducted with the target population. The semi-structured interview allows a certain degree of flexibility for the researcher to respond to the answers of the interviewee and therefore develop the themes and issues as they arise. With this method, relevant information which might not have been gathered using questionnaires is collected.

Study of related literature

By studying literature review, the researcher was able to get background information on the study topic {constructability} through reviewing the state-of-the-art relating to the roles of public-private partnerships.

Procedure for data collection

Fasakin (2006) viewed data collection procedures as a relevant aspect of statistical data analysis that provides comprehensive ideas on a subject matter under review. Data will be collected with the aid of structured and unstructured questionnaires.

Two sets of questionnaires were designed for two categories of respondents to address objectives I to IV of the research. Type "A" set of questionnaires provided a broad spectrum of questions for household heads and their representatives in the selected estates. The questionnaires will be designed to obtain information on the socio-economic characteristics of respondents, number of persons in the household, ownership status (owner, rented), housing type, length of stay, and

household energy source(s), among others. Type "B" set of questionnaires were designed for Estate managers as well as the Directors in the Ministry of Land and Housing and Urban Development.

Method of data analysis

Application of computer-aided software will be used for the preparation of data. The data derived from this research will be analyzed using a main statistical package called Statistical Package for Social Sciences (SPSS). Each objective of the study will be analyzed using SPSS. In addition, charts, tables and graphs will be used for the representation of important variables in the study.

RESULTS

This chapter reports the analysis of the survey conducted during the course of the research on the challenges of housing.

Data collection process

Data for the study was collected in June 2021. Three sets of questionnaires were administered. Questionnaire I for the Private Owned Estates (70 copies) of which 2 copies were administered to residents of Zion Estate along FUTA North Gate and (68 copies) of questionnaires were administered to the residents of the Orita Obele estate community. Questionnaire II for the government Owned Estates (45 copies) of which 38 copies were administered to residents of Afunbiowo Estate, along Ilodo road National open university study centre Idanre road and 7 (copies) were administered to residents of Okuta Elerinla Estate community along Oba Adesida road. Questionnaire III (66 copies) for the Public-Private established estates in Akure of which (9 copies) was administered to residents of Sunshine Garden Estate along Oba IIe road and 57 copies of questionnaires were administered to the residents of the HOB Housing estate community adjacent to Federal Secretariat Akure. A set of interview guild was administered to the Estate manager.

Detailed presentations of findings are shown in Table 3.

Questionnaire I	Distributed	Retrieved	Missing
1. Zion Estate	2	2	0
2. Orita Obele Estate	68	68	0
Total	70	70	0
Questionnaire II			
3. Afubiowo Estate	38	38	0
4. Okuta Elerinla Estate	7	70	0
Total	45	45	0
Questionnaire III			
5. Sunshine Garden Estate	9	9	0
6. HOB Housing Estate	57	57	0
Total	66	66	0

Table 3. Categories of questionnaires distributed across sampling corridors.

Source: Author's Field Work, 2021.

Analysis of objective one: Examine the socioeconomic characteristics of residents across the residential estates corridors in Akure

The data for socio-economic characteristics were collected from the residents who were within the study area. These respondents' characteristics explain in detail the outcome of the research exercise using the application of various quantitative and statistical measures on the data to draw inferences or some ratio of statistical behaviour. Information on the respondent's characteristics were discussed below using descriptive illustration such as tables and charts.

Gender of respondents

Information displayed in Figure 4 shows the gender distribution of respondents across the estates' corridor. In Zion estate, there was one male and one female respondent and in Orita Obele estate, 7.4% of the total population were male while 92.6% of them were female. In the government residential estate, in Okuta Elerinla estate, 89% of the respondents were female while 11% of the respondents were male and in Afunbiowo estate, 85% of them were female while 15% were male. In the Public-Private partnership housing corridor, in HOB

Housing estate, 75% of the respondents were female while 25% were male and in Sunshine garden estate, 42% of the respondents were male while 58% were female. It is evident that in all the residential corridors, the majority of the respondents were female. A detailed analysis of this report is displayed in Figure 4.

Marital status of respondents

Information displayed in Figure 5 shows the gender distribution of respondents across the estates' corridor. In Zion estate, all the respondents were married and in Orita Obele estate, 4.4% are single, 82.4% are married, 4.4% are divorced and 8.8% are widows. In the government residential estate, in Okuta Elerinla estate, 82% of the respondents were married, 10% of the respondents were single and 8% of them were widows. In Afunbiowo estate, 85% of them were married while 5% were single and 10% were divorced. In the Public-Private partnership housing corridor, in HOB Housing estate, 85% of the respondents were married while 15% were single and in Sunshine garden estate, 60% of the respondents were married while 40% were single. It is evident that in all the residential corridors, the majority of the respondents were married. A detailed analysis of this report is displayed in Figure 5.

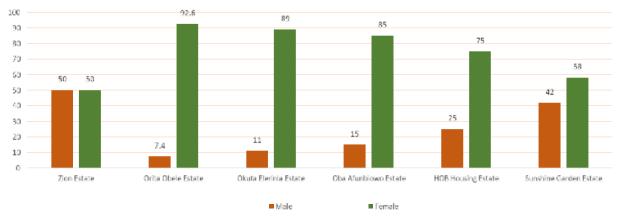


Figure 4. Gender of respondents across the residential estates. Source: Author's field survey, 2021.

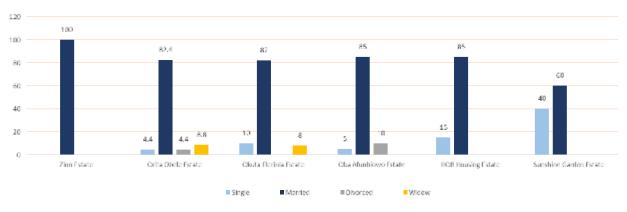


Figure 5. Marital status of respondents across the residential estates. Source: Author's field survey 2021.

Age bracket of respondents

discusses the This section age distribution of respondents across the estates' corridor. In Zion estate, all the respondents were above 45 years of age, in Orita Obele estate, 2.9% were in the age bracket of 18 to 25 years, 26% were between the ages of 26 and 45 years, and 72% of the total respondents were above age 45. In the government residential estate, in Okuta Elerinla estate, 5% were between ages 18 to 25 years, 26% were between ages 26 and 45 years and 69% of the total respondents were above age 45. In Afunbiowo estate, 45% of them were between the ages of 26 and 45 years while 55% were above 45 years. In the Public-Private partnership housing corridor, in HOB Housing estate, 10% were between the ages of 18 and 25 years, 40% were between the ages 26 and 45 years and 50% of the total respondents were above age 45 and in Sunshine garden estate, 4% were between the ages of 18 and 25 years, 43% were between the ages 26 and 45 years and 52% of the total respondents were above age 45. It is evident that in all the residential corridors, the majority of the respondents were above 45 years. A detailed analysis of this report is displayed in Figure 6.

Occupation of respondents across the residential estates

Respondent's income level was put into consideration and this was one of the factors that were considered in studying housing challenges. In Zion estate, 50% of the respondents were civil servants while 50% were retired. In Orita Obele estate, 23.5% were civil servants, 27.9% were students, 1.5% were artisans, 45.6% were traders/business persons and 1.5% were retired from working. In the government residential estate, in Okuta Elerinla estate, 27% were civil servants, 10% were students, 33% were artisans, 20% were traders/business persons and 10% were retired from working and in Oba Afunbiowo housing estate, 24% were civil servants, 25% students. 34% were artisans, 17% were were traders'/business persons and 1.5% were retired from working. In the Public-Private partnership housing

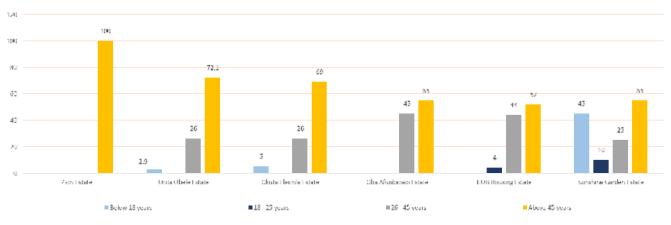


Figure 6. Age of respondents across the residential estates. Source: Author's field survey 2021.

corridor, in HOB Housing estate, 40% were civil servants, 5% were students, 45% were artisans, 10% were traders/business persons and in Sunshine Garden housing estate, 45% were civil servants, 10% were students, 25% were artisans, 20% were traders'/business persons. It is evident that in all the residential corridors, the majority of the respondents were traders/business persons. A detailed analysis of this report is displayed in Figure 7.

Income level of respondents across the residential estates

Respondent's income level was put into consideration and this was one of the factors that were considered in studying housing challenges. In Zion estate, all the respondents earn above N70,000. In Orita Obele estate, 14% earned less than N10,000, 42.6% earned between N11,000 - N30,000, 7.6% earned between N31,000 -N50,000 and 25% earned N51,000 - N70,000. In the government residential estate, in Okuta Elerinla estate, 5% of the respondents earned between N11,000 -N30,000, 15% earned between N31,000 – N50,000, 35% earned N51,000 - N70,000 and 45% earned above N70,000 and in Oba Afunbiowo housing estate, 10% of the respondents earned between N11,000 - N30,000, 15% earned between N31,000 - N50,000, 20% earned N51,000 - N70,000 and 55% earned above N70,000. In the Public-Private partnership housing corridor, in HOB Housing estate, 10% of the respondents earned between N11,000 - N30,000, 40% earned between N31,000 -N50,000 and 50% earned above N70,000. In Sunshine Garden housing estate, 4% of the respondents earned between N11,000 - N30,000, 43% earned between N31,000 - N50,000 and 54% earned above N70,000lt is evident that in all the residential corridors, the majority of the respondents earned above N70,000. A detailed

analysis of this report is displayed in Figure 8.

Examination of the state of housing provision in the area

In this section, personal observation and respondents' views on the state of housing provision in the area. used as a means of examining housing provision there and the assessment was based on variables considered as relevant indicators of the housing provision system, assessment, these include basic mechanisms such as type of building, condition of the building, condition of the road, location of domestic water supply, source of domestic water supply, type of toilet facilities, disposing of refuse, and nature of the roof.

Respondents' view on the type of building

Respondent's housing type was put into consideration and this was one of the factors that were considered in studying housing challenges. In Zion estate, all the houses in the study area were bungalows. In Orita Obele estate, 30.9% of the buildings were Face to Face buildings, 45.6% of the buildings were bungalows, 1.5% of the buildings were duplex and 22.1% of the buildings were storey buildings. In the government residential estate, in Okuta Elerinla estate, 3% of the buildings were Face to face apartments, 45% of the buildings were bungalows, 10% of the buildings were duplex, 42% of the buildings were storey buildings and in Oba Afunbiowo housing estate, 75% of the buildings were bungalows, 5% of the buildings were duplex and 20% of the buildings were Storey building. In the Public-Private partnership housing corridor, in HOB Housing estate, 85% of the buildings were bungalows, and 15% of the buildings were storey buildings and in Sunshine Garden housing estate,

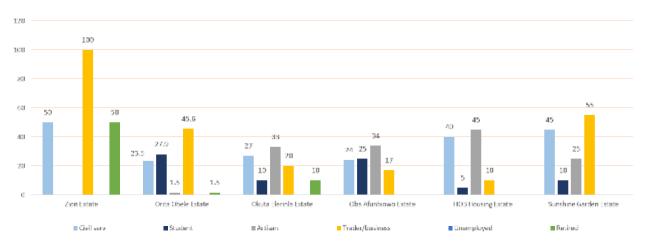


Figure 7. Occupation of respondents across the residential estates. Source: Author's field survey 2021.

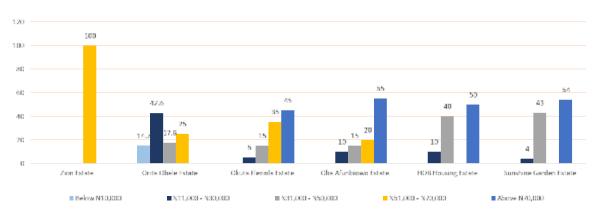


Figure 8. Income level of respondents across the residential estates. Source: Author's field survey 2021.

88% of the buildings were bungalows and 12% of the buildings were Storey building. It is evident that in all the residential corridors, the majority of the respondent's apartments were Bungalows. A detailed analysis of this report is displayed in Figure 9.

Respondents' view on road condition

In Zion estate, 100% of the respondents affirmed that their roads were not tarred, In Orita Obele estate, only 3% of the total population affirmed that their roads were tarred while a larger percentage of about 97% disclosed that their roads were not tarred. In the government residential estate, in Okuta Elerinla estate, 85% of the respondents disclosed that their roads were tarred while only 15% of them stood on the fact that the roads were not tarred and in Oba Afunbiowo housing estate, 65% of the respondents disclosed that their roads were tarred while only 35% of them stood on the fact that the roads were not tarred. In the Public-Private partnership housing corridor, in the HOB Housing estate, 95% of the respondents disclosed that their roads were not tarred while only 5% percent of them stood on the fact that the roads were tarred and in Sunshine Garden housing estate, 75% of the respondents disclosed that their roads were tarred while only 25% of them stood on the fact that the roads on their streets were not tarred. It is evident that in all the residential corridors, the majority of the roads were not tarred. A detailed analysis of this report is displayed in Figure 10.

Respondents' view on the level of housing affordability

In Zion estate, 100% of the respondents disclosed that housing provision in the area is not affordable, In the Orita Obele estate, 13.2% of the total respondents described housing in the area to be affordable, 85.3% of

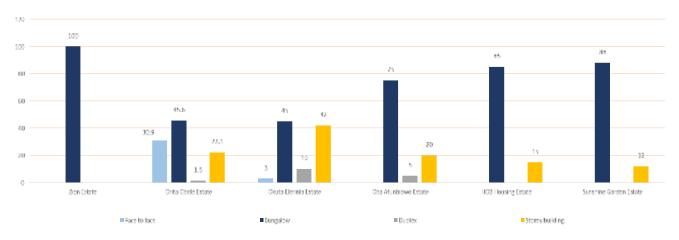


Figure 9. Type of building across the residential estates. Source: Author's field survey, 2021.

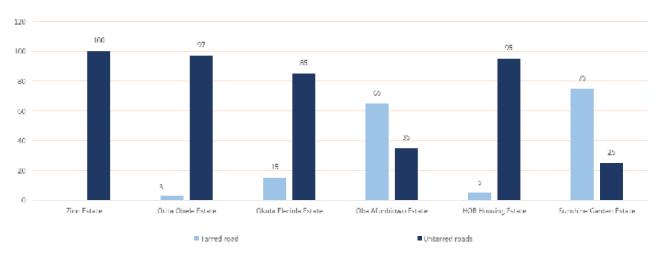


Figure 10. Condition of roads across the residential estates. Source: Author's field survey 2021.

housing in the area not to be affordable and 1.5% of them were not certain about housing affordability in the area. In the government residential estate, in Okuta Elerinla estate, 49% of the total respondents described housing in the area to be affordable, 51% of housing in the area not to be affordable in Oba Afunbiowo housing estate, 52% of the total respondents described housing in the area to be affordable, 48% housing in the area not to be affordable. In the Public-Private partnership housing corridor, in the HOB Housing estate, 42% of the total respondents described housing in the area to be affordable, 58% of housing in the area as not to be affordable and in the Sunshine Garden housing estate, 55% of the total respondents described housing in the area to be affordable, 45% housing in the area not to be affordable. It is evident that in all the residential estate corridors, the electricity supply is not regular. A detailed analysis of this report is displayed in Figure 11.

Respondents' view on their house ownership status

In Zion estate, 100% of the respondents disclosed that they owned a house in the area through their personal effort without any external scheme or support. In Orita Obele estate, 8.8% of the total respondents disclosed that their houses were inherited, 66.2% of them disclosed that their houses were acquired through personal effort without any external scheme or support program and 25% of the respondents were tenants in the administered residential property. In the government residential estate, in Okuta Elerinla estate, 27% of the total respondents disclosed that their houses were inherited, 45% of them disclosed that their houses were acquired through personal effort without any external scheme or support program and 28% of the respondents were tenants in the administered residential property, in Oba Afunbiowo housing estate, 15% of the total respondents disclosed

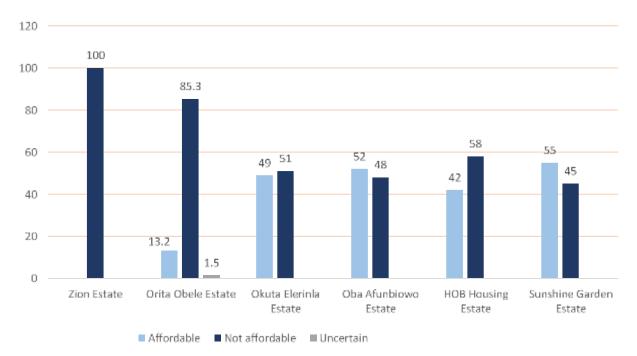


Figure 11. Housing schemes affordability across the residential estates. Source: Author's field survey 2021.

that their houses were inherited, 65% of them disclosed that their houses were acquired through personal effort without any external scheme or support program and 28% of the respondents were tenants in the administered residential property. In the Public-Private partnership housing corridor, in the HOB Housing estate and Sunshine Garden housing estate, houses in these areas were acquired through the Public-Private Partnership housing scheme. It is evident that in public housing estates, there was no sufficient support for housing provision in these areas. A detailed analysis of this report is displayed in Figure 12.

Examination of the role of the public sector in housing provision

This section analyzed the role of Public sector partnership in the provision of housing in the study areas.

Respondents' view on the provision of portable water in Public housing estates

As shown in Figure 13, in Okuta Elerinla, all of the respondents disclosed that there was no provision for portable water by the housing scheme. In Oba Afunbiowo estate, 35% of the respondents revealed that they enjoy public water from the water board in their area while 75% of them were no provision for portable drinkable water.

Respondents' view on the provision of road infrastructure/drainage in public housing estates

As shown in Figure 13, in Okuta Elerinla estate, 68% of the respondents disclosed that there was no provision for good road infrastructure/drainage such as street lights, standard electricity billboards and traffic signage in their street while only 32% said there was provision for good road infrastructure/drainage. In Oba Afunbiowo Estate, 80% of the respondents disclosed that there was provision for good road infrastructure/drainage in their street while 20% said there was no provision for good road infrastructure/drainage.

Respondents' view on the provision for security and waste management in Public housing estates

As shown in Figure 13, in the Okuta Elerinla estate, 28% of the respondents disclosed that there was no provision for security while 72% disclosed there was a provision for security by the housing cooperation. 83% of them revealed that there was no provision for effective waste management in their street while only 17% said there was provision for effective waste management in their street.

In Oba Afunbiowo Estate, 89% of the respondents disclosed that there was no provision for security while 11% disclosed there was a provision for security by the housing cooperation. 21% of them revealed that there

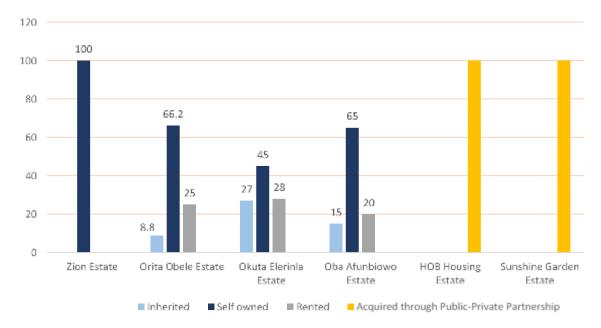


Figure 12. House Ownership status across the residential estates. Source: Author's field survey 2021.

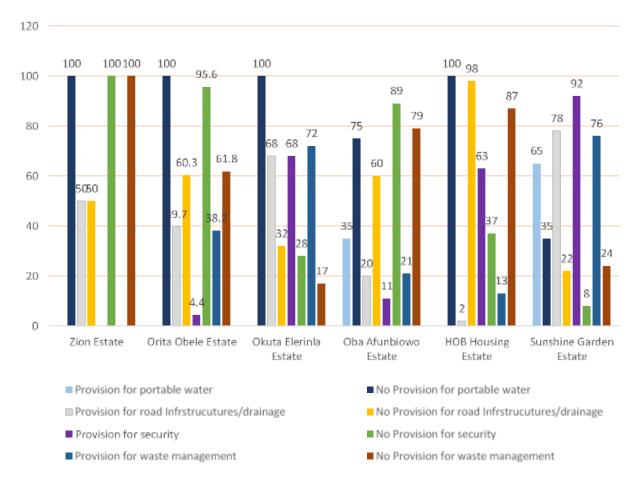


Figure 13. Respondents' view on the provision of basic amenities by estate management across the residential estates. Source: Author's field survey 2021.

was provision for effective waste management in their street while only 79% said there was no provision for security and waste management in their street.

Examination of the role of public-private sectors in housing provision

This section analyzed the role of public-private partnerships in the provision of housing in the study areas.

Respondents' view on the provision of portable water in Public-private housing estates

As shown in Figure 13, in the HOB housing estate all of the respondents disclosed that there was no provision for portable water by the housing scheme and in the Sunshine estate 65% of all the respondents disclosed that there was provision for portable water by the housing scheme while 35% of them said there was none in their area.

Respondents' view on the provision of road infrastructure/drainage in public-private housing estates

As shown in Figure 13, in the HOB housing estate, 98% of the respondents disclosed that there was no provision for good road infrastructure/drainage such as street lights, standard electricity billboards and traffic signage in their street while 2% said there was provision for good road infrastructure/drainage.

In Sunshine Estate, 78% of the respondents disclosed provision that there was for good road infrastructure/drainage in their street while 22% said was no provision for good road there infrastructure/drainage.

Respondents' view on the provision for security and waste management in public-private housing estates

As shown in Figure 13, in HOB estate, 37% of the respondents disclosed that there was no provision for security while 63% disclosed there was a provision for security by the housing cooperation. 87% of them revealed that there was no provision for effective waste management in their street while only 13% said there was provision for security and waste management in their street.

In Sunshine estate, 8% of the respondents disclosed that there was no provision for security while 92% disclosed there was a provision for security by the

housing cooperation. 76% of them revealed that there was provision for effective waste management in their street while only 24% said there was no provision for effective waste management in their street.

CONCLUSION

Residential estates in Nigeria are faced with the issue of not being able to establish effective housing provisions for low-income earners. It could be concluded that the majority of the residents in all the estates were female and they attained at least secondary education and they are informed on the situation of housing in their area and the majority of them are civil servants and artisans. In the private estate, the majority of the roads were in a poor state with several abandoned uncompleted buildings in Zion estate. The common problems amongst all the estate are the problems of inability to afford their desired housing unit. The majority of the houses in the Public-Private Partnership estates are not designed for lowincome earners in Akure. There was no flexibility in the mode of acquiring in-house public-private partnership estates in core areas of Akure.

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