

**APPRAISAL OF MODERN TECHNIQUES FOR HOUSING DELIVERY IN
BENIN CITY**

BY

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CERTIFICATION

We, the undersigned hereby certify that this Project work was carried out in the Department of Estate Management for the award of Higher National Diploma (HND) in Estate Management and Valuation Auchi Polytechnic, Auchi.

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DEDICATION

This project work is dedicated to Almighty God for His infinite mercy and protection over my life throughout the course of my study in Auchi Polytechnic, Auchi.

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Abstract

This study examined appraisal of modern techniques for housing delivery in Benin City. A sample size of 173 was selected using the simple random sampling technique. The survey research design was used for the study and the research instrument used was the questionnaire. Data collected were subjected to statistical analysis. Findings revealed among Result show that the major traditional methods of housing delivery in Benin City were through individual, through community effect, through family members, public sector, through cooperative societies and through community youth. Findings also shows that the main new modern techniques that can be used for effective housing delivery in Benin City were produce more housing at lower cost, reform local land use laws and building codes, accelerate innovation in design and construction, Findings shows that the old methods of housing delivery in Benin City are Built with mud; Wood, Straw, Palm Fronds and Raffia Matting. Findings shows that the new method of housing delivery in Benin City were concrete, steel, concrete walls and floors with, Architectural glass and Precast Concrete Foundation. The study recommended that government should therefore improve on its housing policies. Create an underlaying base for proper organization of the housing delivery system for the use of some the modern strategies as mentioned in the literature review. Adopt different and sustainable means for housing delivery and involve building professionals in the decision making of housing plans and best method of delivery rather than government officials who have no design, building and construction knowledge.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Apart from being one of the items that absorb a large portion of household expenses, housing plays a special role in the social, political and economic discourse of most societies (Brickstone, 2019). Housing shortage is one of the most serious developmental challenges presently confronting Nigeria. Stakeholders and industry operatives in building technology are unanimous in their opinion that the process of housing delivery in Nigeria needs a change of strategy. In this study, the researcher is examining modern ways that could be explored to meet the nation's housing deficit, which stands around 17million units (Akeju, 2012).

Although Nigeria with the total population of 195.8 million people (Temi Oni-Jimoh & Gerges, 2018) has been identified as the largest market in Africa for everything, including real estate, growing demand for decent shelter has continued to meet leaner supply of housing units. Over the years, between 2000 and 2004 the Federal Government established the Federal Ministry of Housing and Urban Development. During this period, the federal government only concerned itself with the provision of basic infrastructures leaving the provision of affordable housing delivery to the private sector, In 2004, the Federal Government declared its willingness to adequately fund researches that have to do with the use of local materials in the housing sector with a target of 40,000 housing units of at least 1000 houses per state before the year 2007 (Jinadu, 2007), (Abdullahi, 2010) with the assistance of the Nigeria Building and Road Research Institute, successive governments in Nigeria as discussed in the literature review had thought of policies in a bid to achieve its mass housing objective but due to lack of reasonable commitment to it, achieving the goal has remained elusive (Federal Government of Nigeria, 2013).

Experts who gave analytical insight into the problem of housing delivery in Nigeria called for a declaration of a state of emergency in the housing sector, saying innovative thinking and modern techniques could bring about better outcomes that will enhance housing delivery process in the country. It is a known fact that financing of housing projects remained one of the biggest problems in the sector that is against housing delivery. (Akeju, 2012) believes the major issue in housing delivery is funding, getting appropriate funding. There is money flowing everywhere but the right type money needed for long-term project like housing is not available. Something that can really work for affordable housing can be like what the Federal Mortgage Bank offers which cannot go around.

Modern techniques such as Preserve Unsubsidized Affordable Housing and Protect against Displacement, Prevent Displacement from Revitalizing Neighborhoods, Expand Assistance for People at the Bottom of the Income Ladder in housing delivery in Nigeria will reiterates the government's priority to tackle overcrowding and the ambitious target to reduce severe overcrowding in rented housing. Alongside making funding available for larger homes, with at least higher number of bedrooms, and a long-term commitment to deliver the family sized affordable homes should be identified in a strategic plan for housing delivery.

There are many techniques needed to facilitate massive housing delivery in Nigeria some are; modern and technologically inspired large scale housing schemes and sites with thousands of housing units which could play a significant role in the delivery of the large number of houses Nigerians need. The experience of the last 20 years suggests that the level of demand for new homes over the next decade will not be met by little incremental developments. In Nigeria today, there is a shortage of housing for low-income earners and constantly growing housing demands (due to increase in population) that are not met (Temi Oni-Jimoh & Gerges, 2018).

Unfortunately, banks are reluctant to provide mortgage facilities to low-income earners. To solve the housing/mortgage challenges faced by the Nigeria populace, the Nigerian Mortgage Refinance Company (NMRC) was established to promote home ownership and increase the availability and affordability of mortgage loans to Nigerians. Despite the incorporation of NMRC in 2013, not much has changed. The apathy of banks towards mortgage transactions still lingers, understandably, because of the risk of defaults.

1.2 Statement of the Problem

The problem of housing delivery is of great concern in many countries. This problem is especially prominent in Nigeria. The challenge has been magnified because of a countless number of issues, not least, a high population growth rate, shortage of necessary skills and disintegrated supply chain. There is need for Nigerian government and stakeholders in the building industry to rise to housing needs of Nigerians in quality and quantity. Some researchers have advocated other modern methods of construction like dry construction as strategy to mass housing delivery. However, the researcher is examining how modern techniques such as Preserve Unsubsidized Affordable Housing and Protect against Displacement, Prevent Displacement from Revitalizing Neighborhoods, Expand Assistance for People at the Bottom of the Income Ladder can be used to ensure that the housing needs in Nigeria are met.

1.3 Research Questions

1. What are the traditional methods of house delivery in Benin City?
2. What are the new modern techniques that can be used for effective housing delivery Benin City?
3. What is the different between the old and the new method of housing delivery in the study area?

4. What are the factors hindering the use of modern techniques in housing delivery in the study area?

1.4 Aims and objectives of the study

The aim of the study is to appraise modern techniques for housing delivery in Benin City. To the achieve the aim, the specific objectives of the study are

1. To examine the traditional method of house delivery in Benin City
2. To examine the new modern techniques that can be used for effective housing delivery Benin City
3. To determine the different between the old and the new method of housing delivery in the study area.
4. To determine the factors hindering the use of modern techniques in housing delivery in the study area

1.5 Significance of the Study

Outcome of this study will educate stakeholders in the building industry, government and policy makers on the modern techniques that can be used to solve the problems of housing deficit in Benin City, Edo State. Thereby making the study very useful as a guide to policy makers in government. This will however helped in better housing development policy adoption and implementation. This study will also assist public-sector housing policy makers and program managers to chart future pathways for improved performance in execution of public sector housing and management in Nigeria. This research will also serve as a resource base to other scholars and researchers interested in carrying out further research in this field subsequently, if applied, it will go to an extent to provide new explanation to the topic.

1.6 Scope of the Study

This study on assessment of modern techniques on housing delivery in Benin City, Nigeria will cover all the effort and approaches of past and present government of Nigeria in Benin City in tackling the problem of housing deficit in Nigeria. With special reference to the ministry of housing and environment in Benin City, it will also cover the new approaches and techniques that can be used for mass housing development in the state.

1.7 Limitation of the Study

The researcher encounter a lot of limitations, first was the attitude of the respondents to the researcher, some of the respondents took the researcher to be an agent from external bodies and deliberately refused to answer the questions. Closely associated with this problem is the fact that some of the respondents did not return the questionnaire to the researcher. This was a big limitation to this study since it further reduced the sample used for the study; also the scarcity of relevant materials was a serious limitation to the study.

1.8 Study Area

Benin City is the capital of Edo State in southern Nigeria, its population is approximately 1,147,188 according to the population census of 2006, it is approximately 205miles north of the Benue River, and it is situated 200miles by road east of Lagos. Benin City is the center of Nigeria's rubber industry, but processing palm nuts for oil is also an important traditional industry, it has latitude of 6.3350⁰N and longitude of 5.6037⁰E. The original people and founder of the Benin Empire, the Edo people, were initially ruled by the Ogiso (kings of the sky) dynasty that caused the land Igodomigodo. The rulers of kings were community known as Ogiso, Igodo and the first Ogisowelded much influence and gained popularity as good ruler. The Portuguese visited Benin City around 1485; Benin City grew rich during the 16th and 17th centuries due to

trade within southern Nigeria as well as through trade with the European mostly in pepper and ivory. On the 17th February 1897, Benin City fell to the Britain in the punitive expedition, a 1200 strong British force under the command of admiral sir Harry Rawson, conquered and raid the city. The Benin bronzes, portrait figures were taken from the city and the merging of layer regional British conquest into the Niger coast protectorate of southern Nigeria and finally into the colony and protectorate of Nigeria.

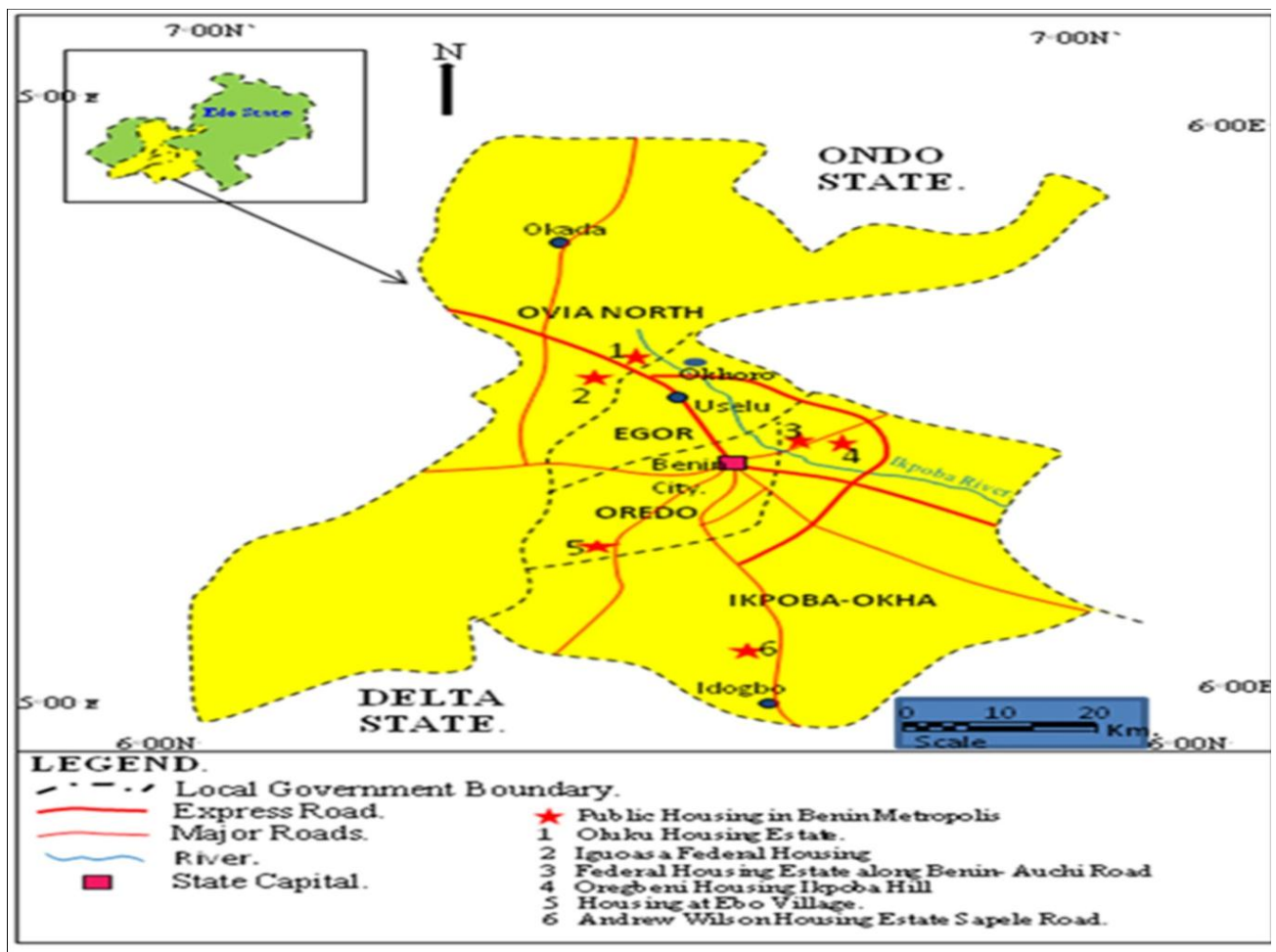


Figure: Study area in its Regional context

Sources: www.wikipedia.com/maps/edostate (2015)

1.9 Operational Definition of Terms

Housing Delivery: The totality of efforts, pecuniary and non-pecuniary commitments that result in the production of the built environment and decent living spaces for human beings (Idaeho, 2019).

Public Housing: Public housing refers to a form of housing provision, which emphasizes the role of the government and its agencies in helping to provide housing, particularly for the poor, low-income and more vulnerable groups in the society (Van, 2000).

Public sectors: include public goods and governmental services such as, infrastructure, public transit, public education, along with health care and those working for the government itself, such as elected officials (Barlow et al., 2010).

Issues and Challenges: a challenge denotes an obstacle to overcome, whereas an issue, generally speaking, denotes a protocol for addressing the challenge in bite-size pieces, so to speak, and determining which issue(s) will be addressed first, second, third, etc., in order of importance (Chigbundu, 2007)

Execution: the carrying out of a plan, order, or course of action (www.dictionary.com, 2008).

CHAPTER TWO

LITERATURE REVIEW

2.1 Concept of Housing

Housing is, defined as buildings or other shelters in which people live, a place to live, a dwelling and to Nations, a critical component in social and economic fabric. Housing represents one of the most basic human needs. The deficit in housing could put many citizens in a precarious situation of either paying so much for an accommodation or not having a decent accommodation at all. (Idaeho, 2019). It is a priority for the attainment of living standard and it is important to both rural and urban areas. These attributes make demand for housing to know no bound as population growth and urbanization are increasing very rapidly and the gap between housing need and supply becomes widens. Cultural factors such as preferences and values or social status, taste and financial resources influence physical characteristics of a house. The gap between supply and demand for housing is an issue for the government to address in order to provide housing, which is a basic need for man. (Oluwaseyi & Ajayi, 2016).

Despite the significance of housing, adequate supply has remained a mirage to all carder of the society in Nigeria. The situation is very particular to most developing countries where population growth is at an exponential rate, rapid urbanization becoming a norm, and discrepancy in housing need and supply is high. Various authorities have proffered techniques for improving housing delivery in Nigeria. (C.A. Ayedun, 2017) Suggested the cooperative housing model while, (Makinde, 2014) suggests land use restructuring, grants and tax reduction.

2.2 The Need for Affordable Housing in Nigeria

Nigeria is perhaps the fastest urbanizing country in the African continent. One of the most important challenges facing the country is the provision of affordable housing. As more and more Nigerians, make towns and cities their homes, the resulting social, economic, environmental and political challenges need to be urgently addressed (Ezeigwe, 2015).

In Nigeria, neither the government nor the private sector provides sufficient Housing units especially for the masses that need and demand it. A recent study of housing situation in Nigeria put formal housing production at approximately 100,000 units per year and this is highly inadequate because at least 1,000,000 units are needed yearly to bridge the 17 to 20 million housing deficit by governments target date of 2023 and approximately US\$363 billion to curtail. (Centre for Affordable Housing Finance in Africa, 2018).

Housing, also referred to as shelter, is one of the three fundamental human rights, and it forms an essential part of human settlement with great impact on the health, welfare, productivity and quality of life of man (Nubi & Afe, 2012). 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 sanitary, 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 all the three domains of sustainable development.

To a nation such as Nigeria, housing is a very important and critical component in its social and economic framework (Amao, 2013) because it accommodates the smallest unit of its society, referred to as the family. Hence, housing is an indicator of a family's standard of living or

societal class (Nubi O., 2008). The present Gross Domestic Product (GDP) equals US\$405.10 billion presently nonetheless; the Per Capita Income is very low at US\$2457.80 as lastly recorded in 2016 (Trading Economics. Nigeria-Economic Indicators) which indicates clearly the fact that there is an unequal distribution of wealth as people's income is not commensurate with the economic growth? The current cost of renting a standard 3-bedroom apartment is US\$5000 per annum (Centre for Affordable Housing Finance in Africa, 2018). This has left the population struggling with poverty, inequality and indecent form of housing that is not sustainable. The fast rate in population growth and urbanization infer an exponential rate of housing deficit, with 61.7% of the urban population being slum dwellers (Centre for Affordable Housing Finance in Africa, 2018) Consequently, the need for an urgent solution of adequate and affordable housing supply to the population is imperative, if the problem of shortage of housing it to be solved. Further review of literature reveals that there had been several attempts made by both the Public and Private Sectors of the country to address the fast-increasing housing demands, which have recorded very minimal success (Waziri & Roosli, 2013). There have been, and currently are, government techniques and efforts in form of housing policies and programmes to address the problems/challenges. Nonetheless, these have also attained very little success.

2.3 Traditional Method of House Delivery

The traditional system of project delivery is still being widely used in Nigeria. This method of project delivery is being referred to as “traditional” because it has been in existence for a very long time and has been the only alternative available for most clients in the construction industry for past years. This system involves the appointment of an architect by the client, who then recommends, sets up and leads the design team. Other members of the design team are the structural, mechanical and electrical engineers. These team will come up with design solution

based on the client's brief and objectives and it is this design solution that will be used to prepare the contract documents. After this stage, building contractors are invited to tender for the construction aspect. Their tenders are examined, compared and the successful contractor will be awarded the contract to execute the construction phase. This means that the client is under two different contractual arrangements, that is the design team and the building contractor.

Between 1975 and 1980 there were plans to deliver 202,000 housing units to the public but only 28,500 units, representing 14.1% was achieved. Under the National Housing Fund (NHF) programme initiated in 1994, to produce 121,000 housing units nationwide that less than 5% was accomplished. In spite of a series of government policies towards housing delivery, there exists a gap between housing supply and demand (Amao, 2013).

Either the Government or Private sector provides housing in Nigeria. Substantial contribution is expected from other public and private sectors. The production of housing in Nigeria is primarily the function of the private market, private developers produce majority of urban housing. Due to housing demand created by rural-urban migration, there is increase in urban population growth, the fixed supply of urban land, and inflation of rental and housing ownership cost this type of movement has a negative impact on the quality of housing and cost of infrastructure (Amrevurayire & Ojeh, 2016).

Apart from being one of the items that absorb a large portion of household expenses, housing plays a special role in social, political and economic discourse (Brickstone, 2019). The issue of affordable housing is a thing of concern for both the government and its citizens. To eradicate these problems public and private developers make efforts using different means to cover the split between housing demand and supply. Problem of implementation, inconsistency

of government policies and programs, lack of efficient credit delivery to the housing sector are some of the problems of housing delivery in the country (Ademiluyi, 2010).

With the numerous policies and ways available for reducing the enormous housing inadequacies it is possible to solve the problem if housing was used for only shelter. However, in addition to serving as a shelter, housing is also a produced commodity, consumer goods, assurance for families, means used for reproducing social relations and an investment tool protecting the value of money against inflation.

2.3.1 Traditional Methods of Housing Finance

Prior to the colonial period, many methods of housing finance were adopted in different parts of the country. Amongst these are Esusu and Ajo, Age grade association, Village development scheme, and Town unions of people living outside their place of birth. Others are Men's revolving loan association, Loans from traditional moneylenders, Social club contributions, Aaro or Owe where members contribute in kind by providing labour on members' site until the circle is completed. All of these methods were successful in the provision of finance for housing and its delivery in the traditional setting. But with the complexity in economic activities, these methods faded away and are "to be replaced" by modern methods

2.4 Techniques, Policies and Programmes on Housing Delivery

Prior to the colonial era, Nigeria had several cities of different sizes and importance. Examples of such cities are Lagos, Benin City, Ibadan and Ilorin, in the south western region, Kano and Zaria, in the northern part, and Onitsha and Aba, in the eastern area, as well as Port Harcourt and Calabar in the south. They are all with their distinctive socio-cultural identities even as they are locations occupied by the three major ethnic groups in Nigeria, plus the southern sub-ethnic group, respectively. The rate of movements of the people from rural areas to the cities during this

era was low, as majority concentrated on agricultural occupation. In the post-Independence era, starting from 1960, people in Nigeria kept migrating at an increasing rate from the rural areas to the urban centres in pursuit of better living conditions. Like every other nation of the world, the migration has been causing rapid and extensive growth in the urban centres. 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 today (Temi Oni-Jimoh & Gerges, 2018).

Before the colonial period in Nigeria (1928–1960), most communities engaged in a communal system of housing delivery. This is a situation whereby peer groups turn out collectively to assist any member to build his/her house on appointed days and the builder provides sumptuous meals for all-in return (Nicholas EO, 2015). This was alternated between all members, thereby enabling housing delivery.

The evolution of housing policies dates as far back as 1928 by the government of Lagos Colony during the Bubonic Plague that lasted till 1929 (Kabir, 2006) when the Lagos State Development Board(LEDB) was established. This era is tagged the Colonial Period between 1928 and 1960. It was for addressing the problem of housing at a national scale (Omange, 2000) and was aimed at the provision of quarters for expatriates and some selected indigenous civil servants such as the Armed Forces, Police, Marine and Railway workers in Lagos and other regional headquarters like Enugu, Ibadan and Kaduna. This approach to African Urban Housing by the Colonial masters aimed at redeveloping ‘decaying core areas’, renewal of slums or squatter settlements and the construction of rental public housing estates. The Nigeria Building Society (NBS), which is like a mortgage institute with the intention of giving both workers in public and private sectors opportunities to have their own houses, was founded after the World War II.

Nigeria was divided into three regions within this era and all the regions established housing corporations in 1964 respectively with a vision of developing housing estates. These are meant to provide mortgage for people, so they can build their own houses and pay back over a long duration of time. However, only the capital cities of these regions were impacted by this programme. The Federal Government made a direct effort on the housing sector by establishing the National Council on Housing in 1971. The NBS was renamed by the Federal Government to Federal Mortgage Bank of Nigeria (FMBN) in 1973. This was when it took over its ownership through the indigenous Act with the aim to expand mortgage lending services to all segments of the population. It started with a capital base of 20 million Naira and this was increased in 1979 to one 150 million Naira. FMBN functions as a secondary mortgage market and hence, primary mortgage market was made opened to the private sector giving rise to another problem of how to fund the Primary Mortgage Institutions (PMI). Consequently, every Nigerian earning up to 3000 Naira per month were mandated to contribute 2.5% of monthly salary to the National housing Fund (NHF), (Federal Government of Nigeria, 2013) with the benefit of borrowing money from the fund through the PMIs after 6 months for housing. This also was not productive as majority of the workers could neither access the fund to get loans nor recover their saved money.

2.5 New Modern techniques that can be used for effective housing delivery

Modern techniques refer to the measures that can be used in the in the proper and sustainable delivery of housing that would curb the problems of housing shortage. If everyone could afford quality housing, and every neighbourhood offered a diversity of housing options, people up and down the income ladder could enjoy housing security and build wealth through homeownership. Achieving this vision requires more than incremental tinkering with today's market institutions

and public policies, it calls for bold action at all levels of government and in the private and non-profits sectors (The Urban Institute, 2019).

2.5.1 Modern Methods of Housing Finance

The sources of housing finance in existence today can be grouped into two that is, Formal and Informal. The formal sector comprises institutions operating within the statutory guideline stated by Federal Government. Among these are:

- A. **FMBN:** The Federal Mortgage Bank of Nigeria (FMBN) started operation in 1977 with the following main functions: The provision of long term credit facilities to mortgage institutions in the country; the encouragement and supervision of the activities of the mortgage institutions; provision of long term loan to individual and property developers for house building, produce saving facility, carry out research on mortgage finance. These activities have been marred by administrative ineptitude, political instability and uncoordinated policies.
- B. **Commercial Banks:** This category of bank is retail bankers by operation. They only lend on short-term basis because they have to meet the withdrawal request at the shortest notice. This has not been compatible with housing finance, which requires long term finance. This has limited their success in housing finance.
- C. **Merchant Banks:** These accept only large time deposits, from corporate organisations and high net worth individuals, with maturity dates up to five years. They hold little cash reserves and unlike commercial banks, offer bridging loans or interim funds to real estate developers and others at very competitive rates of interest, usually on short-term basis.
- D. **Specialized Development Banks:** This category includes the Nigerian Industrial Development Bank (NIDB), Urban Development Bank etc. they are established to grant

long term finance that could last sometimes up to 25 years for industrial, commercial, agricultural and housing development. Though perfect for housing finance, their success in housing finance has been very limited due to inadequate funding and diversion of the little available funds into the short-term sector.

E. **Insurance Companies:** Life funds of insurance companies are long term savings in form of annuities or endowment policies, which can only mature at the occurrence of certain known events, like death, accident or retirement. Their long term sources of funds enables life assurance companies to invest primarily on long term capital assets like real estate investment and get involved in the following: Loan for real estate development based on capital value of the policies, investment in mortgage and debentures; direct investment in or development of real property. I.e. acquiring or developing landed properties apart from those meant for their own occupation. Insurance companies are suited and equipped to finance housing development but due to their preference for higher return, the Nigerian Insurance industry has not played a significant role in housing finance, so far.

F. **Pension Fund:** The National Providence fund collects funds from employers and employees towards their retirement. This gives them access to long term funds and put them in good position to finance housing development. Pension funds like the National provident Fund, collect funds from employers (especially government organisations and large business concerns) and employees and therefore have long term obligation since employers can only receive their benefits or retirement gratuities only after having their jobs. Thus, they usually look for investment that offer long term prospects and are

inflation proof like real property development or acquisition. They also offer loans on long-term basis to building societies and mortgage institutions.

G. Developers/Contractor Financed: Private property developer and other investors have applied various financing techniques like: Turnkey, Pre-letting and, Joint financing, (loan syndication) to finance housing project in Nigeria. Unfortunately, the overall housing demand is so enormous that their impact is minimal.

2.6 Basic Techniques that can be adopted

- i. **Produce More Housing at Lower Cost:** Innovations in building technologies and more flexible local regulations would enable the market to deliver more housing faster and more cheaply. These solutions focus on what type of housing is built and how and where it can be built. Reforms to state and local land use regulations and building codes would allow more housing to be built where it is needed most.
- ii. **Reform Local Land Use Laws and Building Codes:** Restrictive local land use regulations constrain housing supply and drive up housing costs. These constraints stunt local, regional, and national economic growth and widen income and wealth.
- iii. **Accelerate Innovation in Design and Construction:** Unconventional housing designs (e.g., accessory dwelling units and micro units) and innovative construction technologies can potentially increase the range of housing options while reducing costs and sprawl.
- iv. **Preserve Unsubsidized Affordable Housing and Protect against Displacement:** In many communities, housing market pressures drive up rents and home prices, making housing unaffordable and pushing long-time residents out of their communities. Sometimes these pressures result from targeted investments aimed at improving the

quality of distressed neighborhoods'. They can also result from gentrification, rapid growth in local jobs and population, or rising income inequality.

- v. **Preserve Unsubsidized Affordable Housing:** Only about one in five eligible households receives federal housing assistance (Kingsley 2017). Therefore, the stock of privately owned properties charging low to moderate rents plays a critical role in meeting housing needs.
- vi. **Prevent Displacement from Revitalizing Neighborhoods:** In many cities across the country, economic growth, neighbourhood revitalization, shifting neighbourhood preferences, and intensifying housing market pressures threaten to displace long-time residents from their communities. A strong case can be made for policies that give these residents (both renters and homeowners) meaningful voice and power in decisions about the future of their neighborhoods' and allow low-income people and people of colour to share in the benefits of revitalization.
- vii. **Expand Assistance for People at the Bottom of the Income Ladder:** Despite a range of federal, state, and local housing subsidy programs, most households eligible for housing assistance do not receive it. If solutions were effectively implemented, the number of households in need of assistance could be dramatically reduced. However, some households would still lack sufficient income to afford housing in the private market.
- viii. **Provide Direct Income Supports:** One strategy for tackling this challenge would be to boost household incomes by providing a universal basic income or substantially expanded earned income tax credit. In theory, this approach would ensure that all

households have enough income to make housing affordable without explicitly earmarking any income for housing.

- ix. Develop New Forms of Housing Ownership:** Alternative forms of owning land and housing can create or preserve more affordable and stable housing. Shared equity programs, particularly those that preserve long-term affordability, create homeownership opportunities for low- and moderate-income people.

Below are some of the building knowledge needed by policymakers during housing delivery:

- (a) Using simple materials and construction technique.
- (b) Understand opposition to housing development and the effectiveness of techniques for achieving consensus.
- (c) Make land affordable (d) Alternative use technology in construction.
- (d) Forecast the full costs and benefits of alternative models for expanding housing assistance to low-income housing advocates and policymakers can assess the return on investment from expanded federal housing assistance.
- (e) Increase of private investment in housing.
- (f) Improving quality/standard of all existing houses including energy efficiency.
- (g) Giving occupant voice in the decision that affects them.
- (h) Ensuring services reflect the need of those who use them not those who deliver them.

2.6 Factors hindering the use of Modern Techniques in Housing Delivery

1. **Cost-Related Issues** The factories that manufacture components and modules for Modern methods of construction require high startup costs to set up appropriate machinery and a prefabrication yard for the production of the components and modules (BRE 2007). They also need to purchase all relevant materials at the start of the project, which leads to

higher initial costs. Moreover, the majority of factory overhead costs (e.g., labor) are fixed, regardless of output. The construction cost per unit becomes high if precast components are of small quantities (Pan et al. 2011). On the other hand, many site-based overhead costs are only incurred if construction takes place. Therefore, it is not easy to use Modern methods of construction to respond to fluctuating demand. These lead to Modern methods of construction with higher initial costs (Jaillon & Poon 2010), and potentially higher overall costs than traditional methods (Pan et al. 2011), which may result in difficulties in obtaining finance for projects (Pan et al. 2011).

2. **Skills and Experience** Modern methods of construction require highly skilled labor, both for producing parts and modules for Modern methods of construction in factories and for the precise on-site assembly of these parts (Jaillon and Poon 2010). However, many of the different forms of Modern methods of construction are more recent innovations. The lack of adoption of older forms has led to a lack of experience and skills relating to Modern methods of construction, because many people involved in the construction industry have had little or no experience working with Modern methods of construction (BRE 2007; Pan et al. 2011). Also, the small market demand means that a limited number of projects are using Modern methods of construction, so few or zero new people are learning Modern methods of construction (HCA 2010). Moreover, university level students are less exposed to the technology, organization, and design of Modern methods of construction. The academic curriculum seldom includes courses that incorporate a thorough and methodological manner and the potential and limitations associated with Modern methods of construction. (Thanoon et al. 2003).

3. **Motivation and Culture** Many people are suspicious of the performance and quality of Modern methods of construction because of high-profile failure in the past (BRE 2001). Many components and modules of Modern methods of construction are extremely lightweight, leading to the belief that they are low quality, less durable, and might require frequent refurbishing (BRE 2001), and that they may create overheating during the summer months (BRE 2007). Many companies and people have a certain mindset and are unwilling to try new methods [Cooperative Research Centre for Construction Innovation (CRC) 2007]. This leads to a reluctance of manufacturers to innovate and change to Modern methods of construction (Innovate Offsite 2010). There is also a lack of incentives for companies to innovate and change (HCA 2010). Clients are more interested in a well-built dwelling in the right location than in how it is made (BRE 2007), because property is considered as an investment, and Modern methods of construction are not seen as good investments (CRC 2007).
4. **Tools and Standards** Many of the different forms of Modern methods of construction are relatively recent innovations. Many others have only recently become viable alternatives to more traditional construction methods. Therefore, there is a lack of design standardization (Pan et al. 2011) and many relevant quality assessment tools and accreditations are yet to be developed. As a result, fewer codes and standards are available for Modern methods of construction and the regulatory authorities are yet to include many of them in planning regulations (HCA 2010).
5. **Market of Modern methods of construction:** The small market demand controls the capacity of the existing manufacturers. In turn, this has an effect on the cost of products for Modern methods of construction, and eventually, on the overall project cost, because

manufacturers need to charge higher prices to continue to make a profit (HCA 2010; Pan et al. 2011). Moreover, traditional suppliers do not want companies to change to Modern methods of construction because they fear a decrease in profits from selling more traditional supplies. Many traditional suppliers protect the market from suppliers of Modern methods of construction by selling supplies at lower prices than suppliers of Modern methods of construction can offer. This creates rivalry between different manufacturers: they cut their profit margins to remain in business (Pan et al. 2005).

6. **Industry Related Issues:** Modern methods of construction require frequent communication and effective coordination between involved parties, throughout the project period, to ensure that deliveries arrive on time when they are needed (Wong 2000). However, the fragmented nature of the construction industry restricts such communication and coordination, making it harder to standardize designs for Modern methods of construction (HCA 2010). This means that components from different suppliers may not fit together, leading to a lower quality structure and a greater number of defects. Moreover, the inadequate supply of developable land in the planning system makes less land available for construction. This reduces the supply of housing and eases the pressure of the builders to provide faster delivery, which slows the speed of change in the industry toward Modern methods of construction (BRE 2007; CBRE 2010).

2.7 Level of Implementation of the Housing Policies in Benin City

The Nigerian national housing plan which was launched in 1991 in reaction to the Agenda 21 of global housing was expected to realize sustainable human settlement and development. There is injustice in the country's housing development policies which should have accommodated all class but was narrowed to benefit only those in the middle and higher income group, while the

projected housing development meant for the poor and the low-income groups are either hijacked or not adequately supplied. About 90% of housing construction is chiefly in the influences of individual reserved market which benefits the higher income class more, which is an unjust and unbalanced approach. Land purchase up till now has been a major stumbling block to potential landlords, predominantly the low-income group. Olotuah, (2001) suggested that the idea of site-and-service as a means of human settlements development dates from colonial times whereby government had adopted the methods of obtaining huge tracks of land, setting out and providing the major infrastructure before allotting the serviced plots to persons or cooperate organizations before development should be adequately enhanced. Several parts of Nigeria's cities were developed and urbanized in this manner in the past, and the system should be encouraged and not let to die away. Nevertheless, it is a point that the housing problem is far from being resolved; this can be credited to errors implementing the policies adopted by the government to alleviate the housing need of the people which reduces its effectiveness.

2.8 Issues and Challenges Hindering Successful Execution of Public Housing

In Nigeria, the delivery of housing is provided by both formal and informal sectors, houses provided by both the public and private sector are regarded as formal sector housing while those built or delivered by individuals, co-operatives, families or through community development efforts that do not comply to official building standards are referred to as informal sector housing

In Nigeria, according to Alagbe and Opoko (2013) the majority of housing provision is executed by the private sector. Here 90% houses delivered are by individuals (self-built) and this signifies a high proportion of housing units produced by individuals. However, housing delivered by organized formal private sector, as well as the state (real estate developers) are insignificant.

In Nigeria, many households in the urban areas are characterized by a mix of middle-income earners and low-income earners (Makinde, 2013). The range of socio-economic classes present in cities echoes the diversity of housing types delivered within Nigeria cities. This means that people with middle-income to the lower income earners live in rented, informal low quality houses, while high income earners occupy luxury owner-occupied housing (Ndubueze, 2009).. This implies that notwithstanding all efforts made by the Nigeria populace at providing housing through private mechanisms, housing delivery in qualitative and quantitative terms remains a mirage and this is aggravated by the presence official standards that are alien to Nigerian culture. Housing development in some Nigeria states; Edo, Lagos, Delta, Bayelsa, and Imo is limited by local practices which further worsens the engagement of individuals in the process of housing delivery. This is because of certain demands made by the Community Development Association (CDA) in form of levies. These levies are all informal payments demanded by the (CDAs) from housing developers before they can commence building in addition to other formal payments made to the appropriate official agency to obtain building permits. Ezeanah (2018) showed that large sums of money are collected from house builders before they are allowed to build houses, hence posing a great challenge to housing delivery within Edo and some other Nigeria states. Moreover, the rental type of housing categorized as public and private is a type of house delivered in Nigeria and 80% of households in Nigeria live in the private rental houses. This type of housing is plagued with various issues such as issues of finance, poor building materials, and demands for high levies, bureaucratic bottlenecks, extensive importation of building materials and these accounts for housing shortages within the Nigeria shortages. Consequently, in Nigeria despite efforts made at delivering housing through both the formal and informal sector, the housing deficit in Nigeria is huge as there is still a housing shortfall of approximately 16 million.

While the private initiatives enabled more houses to be delivered, these private initiatives were limited by local practices that worsened the engagement of some individuals in Nigeria with the house building processes, thereby limiting the quantity of housing delivered within Nigeria. Therefore, housing delivered are usually not enough to meet with the demands of housing in Nigeria with a shortfall of approximately 16 million housing units. The following are however some of the obvious problems that militated against the effective implementation of Nigeria are housing policies:

1. **Lack of policy thrust/objectives:** “There was absence of a comprehensive national policy framework for the operation and maintenance of Second Republic housing policy for the development of infrastructures” (Bichi, 2001). Some of the steps that should be taken according to Rogers, (2004) include:
 - i. Identification of major causes of poor operation and maintenance of rural development infrastructures.
 - ii. Enacting laws on the institution and practices required for effective operations and maintenance
 - iii. Identification and classifications of various stakeholders for different aspects of rural development maintenance.
 - iv. Enhanced national capacity development in the operation and maintenance of rural infrastructures especially water, electricity, roads, health and educational facilities.
2. **Lack of planning:** “planning, the first and perhaps most important function of management were not the priority of successive administrations including the Second Republic. It is particularly very important in a developing country where resources are relatively scarce”. “A work plan is a written document detailing specific work action

aimed at specific objectives within the framework of an identified environment. The greatest value of a work plan is that it provides you with a working document aimed squarely at specific results and determining how they are to be achieved". Olu, (2003). Balogun (2003) states that "many projects and programmes have failed in this country because adequate plans were not made to identify all the important variables likely to bear on the projects that would determine their failure or success." He observes that: the policy as of now was simply to deliver housing units irrespective of the quality and habitability of such units. They did not meet the culturally determined needs or values of Nigerians in whatever part of the country they were sited and it's unlikely that they would be patronized or fully utilized by many Nigerians. A shift of housing projects to the rural areas since this would decelerate growing urbanization, its many attendant ills and its prejudice in favour of the urban elite. It might be more appropriate to delegate responsibility for housing to local governments and to make funds available to them.

3. **Over Value Contracts Sum and Abandonment of Project:** As stated by Ikegwuoha, (1994), "a combination of executive and political "classes" in collaboration with foreign agents dipped hands into the robust resources of the nation; they selfishly and consciously appropriated them through highly inflated contracts. According to Kanu (2008) states that "the structures numbering about ten most of which had reached roofing stage but have remained abandoned since 1983 As at today, the project has been overgrown by weeds and some of the buildings yielding to the natural consequences of their continued exposure to the vagaries of weather. In his own contribution, (Okoye 2008) opines, "Successive administrations in the State had refused to pay attention to the

project and hoped that this administration would remember this abandoned project of the Second Republic.

4. **Lack of finance:** Finance and credit, especially for housing, have been difficult to mobilize for a number of reasons but most of these are “attributable to the absence of a viable housing finance system. Finance constitutes a fundamental centerpiece in any housing development project, the ability of a developer to mobilize enough funds for the project determines largely the success of the housing policy” (Okupe, 2002). Most Nigerians, in achieving the dream of owning a house, were forced to look for funds from many sources including the financial institutions most of the time.
5. **Inadequate Mortgage Facilities:** It is noteworthy to mention that the housing programme would not be complete without an exhaustive and effective mortgage system in place. As stated by Ebie, (2008), “the fund, since inception, has been ineffective to adequately address the yearning needs of most Nigerians. Accessing the fund is somehow difficult because of the stringent conditionality for obtaining the National Housing Fund loans by individuals”. Akeredo-Ale in his contribution writes “the Nigerian Mortgage system needs an urgent restructuring of the housing crisis is to be addressed. The application of short-term mortgage where a house buyer would be required to pay 50% down payment and the balance within six years, as currently practiced by some developers is not the solution to the mortgage market”, while Ani, (2008) states that “the mortgage facility of the National Housing Fund (NHF) is a commendable option for affordable long-term facility for home ownership and not for short-term home ownership in the country.

6. **Population Explosion:** Increase in the population especially in urban centers does not help matters as it compounds the rate of demand for housing over supply”. According to Bwari, (1999), “large population implies the provision of large amount of services, especially housing, to satisfy all the inhabitants of the country and it was noted that the present planning and execution of housing projects left much to be desired”. In his views, Okupe, (2002) states that “the teeming population in Nigeria’s urban centers is still confronted with the dilemma of acute housing shortage and the National Housing Policy has performed so poorly that it seems to have failed the real test of success - consumer satisfaction”. According to Ibeanu (2007), the large population of Nigeria, therefore, has a major implication on the implementation of housing policy. Though construction is poorly done, yet, the houses were scrambled for by the teeming populace confirming that the percentage of the population of a country that is well housed (in terms of quality, quantity and at affordable prices) is an important indicator of the quality of life available in that country.
7. **Land Use Decree:** Okoye, (2008) writes that “the Land Use Decree unfortunately vested ownership of land in the State to the Chief Executive of such State. The land law did not address the traditional ownership of the land and the extant land laws but made a whole sale proposal which neglected the sentimental attachments that people have to the land”. The bigger the ownership of resources, the more inefficient it is to manage.
8. **Cost of Building Materials:** “High cost of building materials constitutes a serious constraint to the housing development effort of the country, as individuals who cannot afford the cost of the products might not be able to build their own houses (Gana, 2002). In his contribution to cost of material, Ajalenkoko, (2002) opines “cost of construction is

prohibitive in the country in terms of building materials and equipment, cost of labour and inadequate funds from governments to pay construction cost”. In support of this assertion, Igbinedion and Olowe (2007) opine the Federal Government reform programmes have received knocks for their lack of penetrating reach and failure to address the fundamentals of the real estate sector in the country... Whatever achievement the Obasanjo administration could lay claim to have achieved is eroded by the fact that the way things stand, a cement monopoly is being created in the country and that is adversely affecting the cost of the vital building commodity in the market. Presently, according to Ajanlekoko (1997) “houses are built and rely solely on cement. The nation needs about 8.5 million metric tons yearly. While our cement companies are only able to produce about 2-3 million metric tons, this short fall has always accounted for the galloping cost of cement every year.

CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter describes the methodological frame work used in attaining the stated aim and the objectives of the study. Thus this chapter looks at the research design, population of the study, Sample and sampling techniques, instrumentation and procedures for data collection, and method of data analysis.

3.1. Research Design

The research design adopted in this study was the survey design. The choice of this research design was predicated to the premise that it utilized survey method to obtain relevant data and it is effective in eliciting responses from large number respondents.

3.2. Population of the Study

The population for the study is 306; this was obtained from Edo State Ministry of Lands and Housing as the estimated population of individual Residential Land Developers in the study area.

3.3 Sample Frame

This is a presentation of the total number of the targeted audience that makes up the population; it is extension of the population of the study looking at those elements that can be documented. For this purpose, the sample frame of the research is three hundred and six (306) individual Residential Land Developers.

3.4 Sample Size

This refers to a small amount of a substance taken from a larger unit and tested in order to obtain information about the substance for the purpose of the study. The sample size consists of the

number of the element from which information required in this study work is gotten. Since it may not be possible to sample the entire population due to time factor and cost, a representative sample size was taken through a scientific process. Therefore, 306 individual Residential Land Developers forms the sample frame for this study, a statistical formula was used to select the sample size for the study. Using Taro Yamane statistical formula, this is stated as:

$$n = \frac{N}{1+N(e)^2}$$

Where n = Sample size

N = the finite population

e = Level of significance (0.05)

$$N = \frac{306}{1+306(0.0025)}$$

$$\frac{\text{i. e sample size}}{\text{population of the study}} \times \frac{100}{1} = \frac{173}{306} \times \frac{100}{1}$$

$$n = 173$$

The sample size for the study is 176 which are 56.5% of the entire population in the study area.

3.5 Sampling Procedure

This is a procedure for choosing the sample units from a population. Barlett, kotrik, Higgins, (2001) identifies four types of probability sampling technique which includes: simple random sampling, systematic random sampling, stratified random sampling and cluster or multi-stage sampling For this study the systematic sampling technique would be adopted; in this method of sampling, the first unit of the sample selected at random and the subsequent units are selected in a systematic way. If there are N units in the population and n units are to be selected, then $R = N/n$ (R is known as the sampling interval). The first number is selected at random out of the remainder of this R (sampling interval) to the previous selected number. A total number of 173 individual Residential Land Developers' are scientifically selected in the study area.

3.6 Instrument of Data Collection

Descriptive research designs were adopted for this study. This was reflected in the research instrument used for the study. Data for the study were obtained from field survey through structured questionnaire administered to 173 private housing developers in the study area using simple random sampling technique. Data collected for the study are primarily categorical data and comprise socio-economic characteristics of the respondents, their responses on the factors influencing residential land accessibility in Benin City. Questionnaires were administered to the 173 respondents in the City, selected through simple random sampling technique. Scaled questions on the factors influencing residential land accessibility were structured based on a 5-point Likert Scale (i.e. strongly agree = 5; Agree =4; Undecided = 3; Disagree = 2; strongly disagree = 1).

3.5 Method of Data Analysis

Data from the organized questionnaires will be translated into numeric codes by the researcher, and data capture is done by statistical analysis using SPSS (version 21). The analysis, presentation and discussions of the findings from the questionnaires is presented in the following chapter.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

Introduction

This chapter present the data collected with the questionnaire and the presentation of response and interpretation of data obtained. This enabled the researcher to arrive at a reasonable interpretation and discussion in order to make the necessary conclusion and recommendations.

Based on the population of the study, the researcher administered 173 questionnaires to respondents in the study area, 158 of the questionnaires administered were duly completed and returned.

Table 4.1 Respondents socio economic characteristic

Demographic	Frequency	Percentage
Sex		
Male	97	61.4
Female	61	38.6
Total	158	100%
Marital Status		
Single	30	19.0
Married	128	81.0
Total	158	100%
Age of the Respondents		
Below 20 Years	6	3.8
20-29Years	35	22.2
30-40 Years	97	61.4
41-50 years	20	12.6
51 years and above	-	-
Total	158	100%
Educational Qualification		
FSL/SSCE	-	-
NCE/ND	40	25.3
HND/B.Sc.	112	70.9
M.Sc	6	3.8
PhD	-	-
Total	158	100%
Professional Qualification		
Estate Surveyor	26	16.5
Quantity survey	44	27.8
Civil servants	88	55.7
Total	158	100%

Source: Field survey, 2022

Table 4.1 above showed the sex distribution of the respondents. 97 respondents representing 61.4% were males while 61 respondents representing 38.6% were females. It is thus clear that males constituted the greatest number in the sample of respondents who participated.

30 respondents representing 19.0% were single while 128 respondents representing 81.0% were married. This shows that majority of the respondents were married. 6 respondents representing 3.8% were below the age brackets of 20 years; 35 respondents representing 22.2% were between the age brackets of 20-29 years; 97 respondents representing 61.4% were between the age brackets of 30-40 years while 6 respondents representing 3.8% were between the age brackets of 41-50 years. From the analysis above it is clear that those between the age brackets of 30-40 years were more among the respondents who participated in this study. 40 respondents representing 25.3% were ND/NCE holders', 112 respondents representing 70.9% were HND/B.Sc. holders while 6 respondents representing 3.8% were M.Sc./PhD holders. From the analysis it can be deduced that majority of the respondents are HND/B.Sc holders. 26 respondents representing 16.5% were Estate Surveyor and Valuers, 44 respondents representing 27.8% were Quantity surveyors while 88 respondents representing 55.7% were civil servants. This shows that majority of the respondents were civil servants.

Table 4.2 Traditional Methods of Housing Delivery in Benin City

S/N	Traditional Methods	SA (%)	A (%)	U (%)	D (%)	SD (%)	Mea n	Ranks
1	Through Individual	80(50.6)	41(25.9)	23(14.6)	10(6.3)	4(2.5)	4.63	1 st
2	Through community effect	57(36.1)	47(29.7)	32(20.3)	16(10.1)	6(3.8)	4.60	2 nd
3	Through family members	77(44.7)	46(29.1)	20(12.7)	10(6.3)	5(3.2)	4.55	3 rd
4	Public sector	66(44.8)	50(31.6)	22(13.9)	15(9.5)	5(3.2)	4.53	4 th
5	Through cooperative societies	71(44.9)	57(36.1)	18(11.4)	5(3.01)	7(4.4)	4.49	5 th
6	Through community youth effect	62(39.2)	50(31.6)	26(16.5)	16(10.1)	4(2.5)	4.46	6 th

Source: Field Survey, 2022

Table 4.2 presents the traditional methods of housing delivery in Benin City, through Individual was ranked 1st with a mean score of 4.63 followed by through community effect ranked 2nd with a corresponding mean score of 4.60, through family members is ranked 3rd with a mean score of 4.55, Public sector is having a mean score of 4.53 is ranked 4th. Through cooperative societies and through community youth effects are at the extreme bottom with the mean scores of 4.49 and 4.46 and ranked 5th and 6th respectively.

Table 4.3 New modern techniques that can be used for effective housing delivery in Benin City

S/N	New modern techniques	SA (%)	A (%)	U (%)	D (%)	SD (%)	Mean	Rank
1	Produce more housing at lower cost	78(49.4)	41(25.9)	25(15.8)	10(6.3)	4(2.5)	4.63	1 st
2	Reform local land use laws and building codes	34(21.5)	57(36.1)	46(29.1)	16(10.1)	5(3.2)	4.58	2 nd
3	Accelerate innovation in design and construction	23(14.6)	18(11.4)	33(20.8)	38(24.1)	46(29.5)	4.53	3 rd
4	Preserve unsubsidized affordable housing and protect against displacement	76(48.1)	78(49.4)	-	-	-	4.49	4 th
5	Preserve unsubsidized affordable housing	70(44.3)	59(37.4)	17(10.8)	10(6.3)	2(1.3)	4.37	5 th
6	Prevent displacement from revitalizing neighborhoods	77(48.7)	62(39.2)	11(7.0)	8(5.1)	-	4.32	6 th
7	Expand assistance for people at the bottom of the income ladder	68(43.0)	49(31.0)	20(12.7)	16(10.1)	5(3.2)	4.27	7 th
8	Develop new forms of housing ownership	47(29.7)	44(27.8)	33(20.9)	16(10.1)	18(11.4)	4.27	7 th
9	Provide direct income supports	66(41.8)	45(28.5)	22(13.9)	15(9.5)	10(6.3)	4.13	9 th

Source: Field Survey, 2022

Table 4.3 examined the new modern techniques that can be used for effective housing delivery in Benin City, Produce more housing at lower cost was ranked 1st with a mean score of 4.63 followed by Reform local land use laws and building codes with a mean score of 4.58 ranked 2nd, Accelerate innovation in design and construction with a mean score of 4.53 is ranked 3rd, Preserve unsubsidized affordable housing and protect against displacement is having a mean score of 4.49 is ranked 4th. Preserve unsubsidized affordable housing, Prevent displacement from revitalizing

neighborhoods, Expand assistance for people at the bottom of the income ladder, develop new forms of housing ownership and provide direct income supports are at the extreme bottom with the mean scores of 4.37, 4.32, 4.27 and 4.13 and ranked 5th, 6th, 7th and 8th respectively.

Table 4.4 Old Method Materials of Housing Delivery in Benin City

S/N	Old Methods	SA (%)	A (%)	U (%)	D (%)	SD (%)	Mean	Ranks
1	Mud	108(68.4)	37(23.4)	13(8.2)	-	-	4.60	1st
2	Wood	58(36.7)	57(36.1)	22(13.9)	16(10.1)	5(3.2)	4.58	2nd
3	Straw	77(44.7)	46(29.1)	20(12.7)	10(6.3)	5(3.2)	4.55	3rd
4	Palm Fronds	97(61.4)	56(35.4)	5(3.2)	-	-	4.55	3 rd
5	Raffia Matting	46(29.5)	38(24.1)	33(20.8)	23(14.6)	18(11.4)	4.53	5th

Sources, field Survey, 2022

Table 4.4: above examine the old methods of housing delivery in Benin City; Built with mud was ranked 1st with mean score of 4.60; Wood, Straw and Palm Fronds are ranked 2nd and 3rd with a mean score of 4.58 and 4.55 respectively while Raffia Matting with a mean score of 4.53 is ranked 5th and the least ranked.

Table 4.5 New Method of Housing Delivery in Benin City

S/N	New Method	SA (%)	A (%)	U (%)	D (%)	SD (%)	Mean	Rank
1	Concrete	97(61.4)	56(35.4)	5(3.2)	-	-	4.55	1st
2	Steel	78(49.4)	65(41.1)	15(9.5)	-	-	4.53	2nd
3	Concrete Walls and Floors	71(44.0)	43(27.2)	24(15.2)	11(7.0)	9(5.7)	4.49	3rd
4	Architectural glass	68(43.0)	45(28.5)	21(13.3)	14(8.9)	10(6.3)	4.46	4th
5	Precast Concrete Foundation	57(36.1)	54(34.2)	32(20.3)	12(7.6)	3(1.9)	4.41	5th

Source: Field Survey, 2022

Table 4.5 above examined the new method of housing delivery in Benin City; Concrete was ranked 1st with a mean score of 4.55. This was followed by Steel and concrete walls and floors with mean scores of 4.53 and 4.49 rating respectively. Architectural glass and Precast Concrete

Foundation were the least rated by the respondents having a mean score of 4.46 and 4.41 respectively.

Table 4.6: Factors hindering the use of Modern Techniques in Housing Delivery in Benin City

S/N	Factors	SA (%)	A (%)	U (%)	D (%)	SD (%)	Mean	Rank
1	Cost-related issues	71(44.9)	57(36.1)	18(11.4)	5(3.01)	7(4.4)	4.49	1st
2	Skills and experience	78(49.4)	70(44.3)	4(2.5)	-	-	4.46	2nd
3	Tools and standards	65(41.1)	93(58.9)	-	-	-	4.41	3rd
4	Motivation and culture	65(41.1)	47(29.7)	20(12.7)	15(9.5)	11(7.0)	4.37	4th
5	Market of modern methods of construction	62(39.2)	51(32.3)	25(15.8)	9(5.7)	11(7.0)	4.34	5 th
6	Industry Related Issues	77(48.7)	62(39.2)	11(7.0)	8(5.1)	-	4.32	6th

Source: Field Survey, 2022

Table 4.6: Examine the factors hindering the use of modern techniques in housing delivery in Benin City; Cost-related issues was ranked 1st with mean score of 4.49; Skills and experience and Tools and standards are ranked 2nd and 3rd with a mean score of 4.46 and 4.41 respectively. Motivation and culture is having a mean score of 4.37 and ranked 4th. Market of modern methods of construction and industry related issues are at the extreme bottom with mean scores of 4.34, and 4.32 and are ranked 5th and 6th respectively.

Table 4.7: Level of Implementation of Housing Policies in Benin City

S/N	Level	SA (%)	A (%)	U (%)	D (%)	SD (%)	Mean	Rank
1	Housing delivery through private sector	55(34.8)	63(39.9)	23(14.6)	10(6.3)	7(4.4)	4.41	1 st
2	Housing delivery through individuals and households	62(39.2)	51(32.3)	25(15.8)	9(5.7)	11(7.0)	4.37	2 nd
3	Housing delivery through Government	71(44.9)	62(39.2)	11(7.0)	8(5.1)	6(3.8)	4.32	3 rd
4	Housing delivery through cooperative societies	68(43.0)	49(31.0)	20(12.7)	16(10.1)	5(3.2)	4.27	4 th
5	Housing delivery through corporate bodies	91(57.6)	35(22.2)	22(13.9)	8(5.1)	2(1.3)	4.11	5 th

Source: Field Survey, 2022

Table 4.5: Examine the level of implementation of housing policies in Benin City; Housing delivery through private sector was ranked 1st with mean score of 4.41; Housing delivery through individuals and Housing delivery through Government are ranked 2nd and 3rd with a mean score of 4.37 and 4.32 respectively, housing delivery through cooperative societies having a mean score of 4.27 and ranked 4th. Housing delivery through corporate bodies is at the extreme bottom with mean scores of 4.11 and ranked 5th.

4.2 Discussion of Finding

Data were analyzed based on the responses gotten from the questionnaires distributed. One hundred and seventy three (173) questionnaires were administered, while one hundred and fifty eight (158) was retrieved representing 91.3%. Analysis was made on the socio economic background of the respondents and the research questions were also treated. 61.4% of the respondents were males while 38.6% of the respondents were females. It is thus clear that males constituted the greatest number in the sample of respondents who participated. 19.0% of the

respondents were single while 81.0% of the respondents were married. This shows that majority of the respondents were married. 3.8% of the respondents were below the age brackets of 20 years; 22.2% of the respondents were between the age brackets of 20-29 years; 61.4% of the respondents were between the age brackets of 30-40 years while 3.8% of the respondents were between the age brackets of 41-50 years. From the analysis above it is clear that those between the age brackets of 30-40 years were more among the respondents who participated in this study. 25.3% of the respondents were ND/NCE holders, 70.9% of the respondents were HND/B.Sc. holders while 3.8% of the respondents were M.Sc./PhD holders. From the analysis it can be deduced that majority of the respondents are HND/B.Sc holders. 16.5% of the respondents were Estate Surveyor and Valuers, 27.8% of the respondents were Quantity surveyors while 55.7% of the respondents were civil servants. This shows that majority of the respondents were civil servants.

Using descriptive statistical analysis as illustrated in table 4.2. Findings show that the traditional methods of housing delivery in Benin City are through Individual, through community effect, through family members, Public sector, through cooperative societies and through community youth.

Using descriptive statistical analysis as illustrated in table 4.3. Findings shows that the new modern techniques that can be used for effective housing delivery in Benin City are to produce more housing at lower cost, reform local land use laws and building codes, accelerate innovation in design and construction, Preserve unsubsidized affordable housing and protect against displacement, preserve unsubsidized affordable housing, prevent displacement from revitalizing neighborhoods, expand assistance for people at the bottom of the income ladder, develop new forms of housing ownership and provide direct income supports.

Using descriptive statistical analysis as illustrated in table 4.4. Findings shows that the old methods of housing delivery in Benin City are Built with mud; Wood, Straw, Palm Fronds and Raffia Matting.

Using descriptive statistical analysis as illustrated in table 4.5. Findings shows that the new method of housing delivery in Benin City were concrete, steel, concrete walls and floors with, Architectural glass and Precast Concrete Foundation.

Using descriptive statistical analysis as illustrated in table 4.6. Findings shows that the main **factors** hindering the use of modern techniques in housing delivery in Benin City were cost-related issues; skills and experience, tools and standards, motivation and culture, market of modern methods of construction and industry related issues.

Using descriptive statistical analysis as illustrated in table 4.7. Findings shows that the level of implementation of housing policies in Benin City are housing delivery through private sector; housing delivery through individuals, housing delivery through Government, housing delivery through cooperative societies and housing delivery through corporate bodies

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

The research appraise modern techniques for housing delivery in Benin City, the summary of findings is as follow:

1. Result show that the major traditional methods of housing delivery in Benin City were through Individual, through community effect, through family members, Public sector, through cooperative societies and through community youth.
2. Findings shows that the main new modern techniques that can be used for effective housing delivery in Benin City were produce more housing at lower cost, reform local land use laws and building codes, accelerate innovation in design and construction,
3. Findings shows that the old methods of housing delivery in Benin City are Built with mud; Wood, Straw, Palm Fronds and Raffia Matting.
4. Findings shows that the new method of housing delivery in Benin City were concrete, steel, concrete walls and floors with, Architectural glass and Precast Concrete Foundation.
5. Findings shows that the main factors hindering the use of modern techniques in housing delivery in Benin City were cost-related issues; skills and experience, tools and standards among others.
6. Findings shows that the main level of implementation of housing policies in Benin City were housing delivery through private sector; housing delivery through individuals and housing delivery through Government.

5.2 Conclusion

Housing as an important element in social and economic fabric plays an important role in the society. The gap between supply and demand for housing is an issue for the Nigerian government and policy makers to address and to provide housing which is a basic need for the citizens. Most of the past housing delivery strategies adopted by both the federal and state government has not really curbed the problems of housing shortage, the use of modern ways in housing delivery is key in achieving housing efficiency and adequacy.

5.3 Recommendations

Based on the findings and conclusion made, the study recommended the followings:

1. The government should therefore improve on its housing policies.
2. Create an underlaying base for proper organization of the housing delivery system for the use of some the modern strategies as mentioned in the literature review.
3. Adopt different and sustainable means for housing delivery.
4. Involve building professionals in the decision making of housing plans and best method of delivery rather than government officials who have no design, building and construction knowledge.
5. Proper attention should be given to building type as to achieve the buildings function.
6. Old buildings should be renovated and allocated to deserving users.

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Appendix I

Department of Estate Management and Valuation,
School of Environmental Studies,
Auchi Polytechnic, Auchi
Edo State,
P.M. B. 13,

26th August, 2022

Dear Respondent,

This questionnaire is administered for a Higher National Diploma (HND) Research at the Department of Estate Management and Valuation, Auchi Polytechnic, Auchi. It is designed to get relevant information on “**Appraisal of Modern Techniques for Housing Delivery in Benin City.**”

Attached to this is a questionnaire meant to gather relevant information for the research.

Your response will be treated with utmost confidentiality and shall be used strictly for academic purpose only.

Thank you,

Yours faithfully

ALIU ODION SAMUEL
Researcher

QUESTIONNAIRE

Instruction: Please [✓] in the option you consider correct from the alternative given below.

SECTION A: SOCIAL –Personal Details

1. **Sex:** Male () Female ()
2. **Marital:** Status: Single () Married ()
3. **Age:** Below 20 years() 20-29 years () Above 30-40years() 41-50 years () 51 years and above ()
4. **Educational background:** FSLC/SSCE () ND/NCE () HND/B. Sc. () M.Sc. () PhD ()
5. **Professional Qualification:** Estate Surveyor and Valuers () Quantity Survey () Accountant

Section B: Research questions of the study. Please indicate your opinion on these questions. Rate your level of agreement or disagreement using the Likert scale of 1- 5, where 5= strongly Agree, 4 = Agree, 3= Undecided, 2 = Disagree, 1 =strongly Disagree.

Table I: Traditional Methods of Housing Delivery in Benin City

S/N	Traditional methods	5	4	3	2	1
1	Through community effect					
2	Public sector					
3	Through family members					
4	Individual					
5	Through cooperative societies					
6	Through community youth effect					

Table II: New modern techniques that can be used for effective housing delivery in Benin City.

S/N	New modern techniques	5	4	3	2	1
1	Produce More Housing at Lower Cost					
2	Reform Local Land Use Laws and Building Codes					
3	Accelerate Innovation in Design and Construction					
4	Preserve Unsubsidized Affordable Housing and Protect against Displacement					
5	Preserve Unsubsidized Affordable Housing					
6	Prevent Displacement from Revitalizing Neighborhoods					
7	Expand Assistance for People at the Bottom of the Income Ladder					
8	Provide Direct Income Supports					
9	Develop New Forms of Housing Ownership					

Table III: Old Method Materials of Housing Delivery in Benin City

S/N	Old method Materials	5	4	3	2	1
1	Built with mud					
2	Wood					
3	Straw					
4	Palm Fronds					
5	Raffia Matting					

Table IV New Method of Housing Delivery in Benin City

S/N	New Method					
1	Steel					
2	Concrete					
3	Architectural glass					
4	Concrete Walls and Floors					
5	Precast Concrete Foundation					

Table V: Factors hindering the use of Modern Techniques in Housing Delivery in Benin City

S/N	Factors	5	4	3	2	1
1	Cost-Related Issues					
2	Motivation and Culture					
3	Skills and Experience					
4	Tools and Standards					
5	Market of Modern methods of construction					
6	Industry Related Issues					

Table VI: Level of Implementation of Housing Policies in Benin City

S/N	Level	5	4	3	2	1
1	Housing Delivery Through Government					
2	Housing Delivery Through Private Sector					
3	Housing Delivery Through Individuals and Households					
4	Housing Delivery Through Cooperative societies					
5	Housing Delivery Through Corporate bodies					