

Urbanization and Housing Facility in Enugu Urban, Enugu State of Nigeria

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ABSTRACT

Urbanization is not a recent phenomenon neither is it peculiar to any society. It is a global phenomenon, a trans-generational process that is inevitable and never ends. Urbanization brings with it possibilities of improved access to housing and also posed challenges to urban housing in many countries. The present study has been therefore motivated by the inadequacy in housing facility in relation to the ever-increasing urban population in Enugu Urban. The broad objective of the study was to examine the effect of urbanization on housing facility in Enugu Urban, Enugu State of Nigeria. The specific objectives are to ascertain the effect of urban spatial structure on housing quality in Enugu Urban; and determine the effects of population growth on housing affordability in Enugu Urban, Enugu State of Nigeria. The study adopted a descriptive survey design. The population of the study was 969,074, comprising 774 staff of Enugu State Housing Development Corporation and 968,300 residents of urban areas in Enugu State. The sample size of 400 was determined using Taro Yamane formula. The purposive sampling technique was used for the selection of the respondent. The data collected were presented and analyzed using mean score and standard deviation, while the hypotheses were tested with t-test statistical analysis at 0.05 level of significance. The study revealed that urban spatial structure has significant negative effect on housing quality in Enugu Urban (χ^2 cal. of 30.74 > χ^2 tab. of 9.49). It was also discovered that the population growth has significant negative effect on housing affordability in Enugu Urban, Enugu State of Nigeria (χ^2 cal. of 19.65 > χ^2 tab. of 9.49). It was concluded that the extent of the housing shortage in Enugu urban areas is enormous. The inadequacies are far-reaching and the deficit is both quantitative and qualitative, but not insurmountable. Based on these findings and conclusion, the study recommended for urgent multi-faceted intervention to address the housing deficit both qualitatively and quantitatively by adopting a pro-poor housing development strategy through public-private partnership. The study also recommended that the development of further estates should henceforth emphasize on low-income housing to create more houses affordable by the low income earners in Enugu urban.

Keywords: Urbanization, Housing Facility, Urban, Urban Spatial Structure, Population Growth, Housing Quality, Housing Affordability

INTRODUCTION

Urbanization is not a recent phenomenon. It is a global phenomenon, a trans-generational process that never ends. Movements of persons from one geographical location to another have been a regular phenomenon. Such movements are usually associated with a search for greener pasture. Urbanization is a fundamental phenomenon of multidimensional transformation which rural societies go through in order to evolve into modernized societies from sparsely populated areas to densely concentrated urban cities (Oni-Jimoh & Champika, 2018).

Urbanization brings with it possibilities of improved access to housing, transportation, road networks, health facilities, education, jobs, goods and services for poor people in developing countries and beyond as

globalization connects cities worldwide.

Urban areas as hubs for civilizations and economic activities with their unquestionable potential are expected to offer employment, shelter, stability, prosperity, security, social inclusion and more equitable access to services. All these, according to Eleje (2021) would make lives safer, healthier, sustainable and more convenient. Regrettably, urbanization in developing countries has followed a different trajectory from the above premise, leaving many overwhelmed urban residents in frustration, despair and confusion. The physical manifestations of rapid urbanization in many developing countries like Nigeria are often chaotic and reflective of the profound and far-reaching demographic, social and economic transformations occurring in these countries. Unfortunately, the opportunities of urbanization are jeopardized akin to policy inconsistency, lack of adequate resources or rather misuse of available resources, resulting in deficient basic infrastructure, inefficient services and well-conceived planning cum implementation. Urbanization process in developing countries has consequently been described as “pseudo-urbanization” (Lwasa, 2009 in Eleje, 2021).

Sketching the foundation of urbanization in Nigeria, Iyi (2014) opined that it began with the Township Ordinance No. 29 of 1917 which was enacted to classify urban settlements in Nigeria into different grades of cities and as well to establish broad physical layout of towns. In that ordinance, according to Iyi (2014) Enugu was classified a second-class Township amongst other towns. The ordinance came into being within the period of discovery of coal in Enugu in 1907 and the consequent exploitation from 1915. Notably before the classification, Enugu had remained an important town east of the Niger based on several functions which it served and has continued to serve to the present day.

Aluko (2010) cited in Idoko1 & Ezeodili (2021) emphasized that urbanization involves economic, sociological, psychological, ethnic, racial, and numerical dimensions. The concentration of wealth, prestige, political power, and religious learning in the cities attracted large numbers of migrants, both from the neighboring countryside and from distant regions. This influx occasioned the building of additional sections of the city to accommodate these migrants. As more houses were built in the city, it was observed that most of the housing units were meant for only the few rich at the detriment of the poor. Most of these houses were not affordable for an average household.

It is not a surprise for urbanization to have enormous negative consequences in Nigeria and other developing countries because of the population increase involved in its process. The index of urbanization in Nigeria which is the population increase is mainly caused by rural-urban migration and not by natural increase. Many researchers see rural-urban migration in urbanization process as the genesis of the resultant problems of urbanization in any part of the world (Idoko1 & Ezeodili (2021).

With reference to Enugu urban centres the rapidity of urban growth and the corresponding housing deficit gives cause for concern. The governments over the years have neglected the poor in housing policy in Enugu State to the extent that even as housing estates are developed in various parts of the Enugu urban, they remain unaffordable to the low income households. The consequence has been the rise in squatter or slum settlements in the city. It is in light of the above that this study examines the issue of urbanization and housing facility in Enugu Urban, Enugu State of Nigeria.

Statement of the Problem

One of the serious problems of urbanization is the shortage of housing especially in developing countries of the world. This is so because the government and relevant authorities are unable to meet the needs of urban growth by providing land and housing needed to accommodate the new urban sojourners. Urbanization in many parts of Nigeria is characterized by acute shortage of housing deteriorating living conditions and physical expansion of the city into the fringes. Often times the agricultural lands at the urban fringes are

sacrificed to accommodate the ever increasing population moving into the area for greener pasture.

The rapid rise of urbanization in most parts of Enugu State has presented the state with a number of challenges and stripped its urban centres of their ability to provide for basic needs like shelter, infrastructure and health care. Joseph (2019) observed that urbanization and demand for houses are positively correlated and thus as the urban society of a city expands so does the needs for more housing. In the case of most urban centre in Enugu State, these needs have largely been unmet.

The provision of adequate housing remains a challenge to most urban centres in Enugu State. Consequently, housing shortage in in Enugu urban centres has escalated to unprecedented rates. This resulted to increase in house price and led to housing affordability dilemmas among various housing consumers. The price of urban housing in Enugu State is being determined mainly by the basic economic forces of demand and supply which has led the problem of housing to become the most critical. This is reflected from the wide spread of slums, poor quality housing, unsanitary environments and squatter settlements in most urban areas in Enugu State (Eleje, 2021). The problem of inadequate housing for the people, especially among the low-income group, constitutes one of the major challenges to the welfare of citizens in Enugu urban centres. Housing is universally acknowledged as one of the most basic human needs for life and it is a residential structure where man lives and grows. The influx of migrants in Enugu urban centres has created scarcity of housing. Lack of adequate housing to meet up with the rapid increase in urbanization trends has continued to be a challenge. Poor housing policy has resulted in the various unplanned settlements in Enugu urban areas.

The present study has been therefore motivated by the inadequacy in housing provision in relation to the ever-increasing urban population in Enugu State. Few studies which have been conducted in the study area have not specifically examined the issue of urbanization and housing facility in Enugu Urban, Enugu State of Nigeria. As a result, this study was carried out to fill this gap in knowledge and literature.

Objectives of the Study

The broad objective of the study is to determine the Effect of Urbanization on Housing Facility in Enugu Urban, Enugu State of Nigeria. The specific objectives of the study are to:

1. Ascertain the effect of urban spatial structure on housing quality in Enugu Urban, Enugu State of Nigeria.
2. Determine the effects of population growth on housing affordability in Enugu Urban, Enugu State of Nigeria.

Research Questions

The following research questions were developed for the study.

1. What are the effects of urban spatial structure on housing quality in Enugu Urban, Enugu State of Nigeria?
2. What are the effects of population growth on housing affordability in Enugu Urban, Enugu State of Nigeria?

Statement of Hypotheses

The study was guided by the following hypotheses

1. Urban spatial structure has significant negative effect on housing quality in Enugu Urban, Enugu State of Nigeria.

2. Population growth has significant negative effect on housing affordability in Enugu Urban, Enugu State of Nigeria.

LITERATURE REVIEW

Conceptual Review

Urbanization

Urbanization refers to the growth of urban areas, most times at expense of the rural environments as people move from rural areas to urban centres in search of job opportunities and improved livelihood (OlaREWaju & Oviasogie, 2019). Cities offer the lure of better employment, education, healthcare, and culture; and they contribute disproportionately to national economies. Urbanization is one of the major demographic and economic phenomena in developing countries, with important consequences for economic development, energy use, housing and well-being (Joseph, 2019). defines urbanization as the shift from a rural to an urban society, and involves an increase in the number of people in urban areas during a particular period. It has been described as the increased concentration of people in cities rather than in rural areas. Urbanization is the outcome of social, economic and political developments that lead to urban concentration and growth of large cities, changes in land use and transformation from rural to metropolitan pattern of organization and governance (Eleje, 2021). Urbanization also finds expression principally in outward expansion of the built-up area and conversion of prime agricultural lands into residential and industrial uses. This process usually occurs when a nation is still developing (OlaREWaju & Oviasogie, 2019).

Components of Urbanization

Components of urbanization are various and wide-ranging, but two of these components were discussed in this study. These are:

1. **Population Pressure:** Population pressure is a term summarizing the stress brought about by an excessive population density and its consequences. It is used to describe human overpopulation that suffers from too many individuals per area. In the case of humans, absolute numbers of individuals may lead to population pressure, but the same is true for overexploitation and overconsumption of available resources such as housing and ensuing high price and environmental degradation. Population pressure is the excessive increase in number of people seeking for a particular resources (housing) within a population that reduce the ability of an environment to support the population and that therefore tend to result in unaffordability of such resources (Okorochoa & Obienusi, 2022)
2. **Urban Spatial Structure:** Urban spatial structure considers the location of different activities in central areas and the periphery. A central area is a cluster of core and/or central activities and the most important central area of a city are usually labeled as the central business district. Core activities are those of the highest order in the urban spatial structure, namely tertiary and quaternary activities involved in management (head offices, finance, and insurance) and consumption (retailing). They commonly benefit from a high level of accessibility to the workforce and customers. Central activities focus on the functions of production and distribution with activities such as warehousing, manufacturing, wholesaling, and transportation. They require a good level of accessibility but need more land than core activities. Peripheral activities are primarily residential or servicing local needs ((OlaREWaju & Oviasogie, 2019).

Concepts of Housing Facility, Housing Quality and Housing Affordability

The concept of housing facility has recently garnered scholarly attention. It can be defined as the process of providing permanent physical infrastructure and social services to a large number of residential buildings in

planned, decent, safe, and hygienic communities in order to meet the population's basic and special demands (Nwalusi, Okeke, Anierobi & Nwosu, 2022). Housing, in all of its forms, is more than just a place to live because it encompasses all of the infrastructure, social services, and utilities that make a community or neighborhood habitable. It's also a collection of human settlements centered on facilities and resources that support and sustain life.

There are several aspects to housing that impact health, including affordability, stability, quality and safety, and surrounding neighborhood.¹ This study will discuss the quality of housing, specifically the physical quality of housing and neighborhood conditions. Housing quality refers to the physical conditions of a person's home as well as the quality of the social and physical environment in which the home is located (Krieger & Higgins, 2018). Housing quality refers to the physical conditions of a person's home as well as the quality of the social and physical environment in which the home is located. Home design and structure significantly influence housing quality and may affect both mental and physical health. Poor housing quality and inadequate conditions such as the presence of lead, mold, or asbestos, poor air quality, and overcrowding can contribute to negative health outcomes, including chronic disease and injury (Nwalusi, Okeke, Anierobi & Nwosu, 2022).

Housing affordability broadly refers to the cost of housing services and shelter both for renters and owner occupiers relative to a given individual's or household's disposable income. While there is no universal definition for this term, housing affordability is an easy concept to grasp in general. At the same time, affordability can be hard to pin down in practice, especially in terms of defining the appropriate geographic scope for housing markets, suitable definitions of representative reference individuals and households, and their changing circumstances over time. In its most crude form, housing affordability simply refers to the rent-to-income ratio or house-price-to-income ratio; more sophisticated measures of housing affordability consider how much non-housing expenditures are limited by how much is left after paying for housing.

Relationship between Urbanization and Housing Facility

The review of the relationship between urbanization and housing provision in this study was based on the two components of the dependent and the independent variables in the subject under study. The review was therefore carried under sub-heading as follow.

Urban Spatial Structure and Housing Quality in Urban Centres

The increase in the rate of urbanization and the growth in the number of cities are both alarming and scaring, while the situations in the cities are unsatisfactory. The major problem of the rapid growth of urban centres in Nigeria is the provision of basic facilities and services such as water, electricity, transportation, housing, sewage and drainage. When there is excessive pressure on urban services, the cities become inefficient, unworkable and unlivable. This poses a serious challenge to urban planning (Aderamo & Ayobolu, 2020).

In particular, housing problem is prevalent in many of Nigerian urban centres. This is an enduring feature of urbanization process. As a result of urbanization, there is now tremendous pressure on housing so much so, that the gap between housing supply and demand in Nigeria continues to widen. According to Megbolugbe (2018) the most outstanding of all urban problems, caused by the rapid expansion of urban population, is that of providing housing facilities for the teeming urban population in Nigeria.

The general spatial pattern characteristic of urbanization is that the elite group resides in the exclusive and reserved part of the city, the middle class occupy the former homes of the elite and the poor make do with buildings in the interior, usually make shift, slums and squatter settlements. Mabogunje [10] listed the principal housing problems associated with spatial structure pattern of urban planning, especially in the

interior areas to include: poor housing conditions manifested in overcrowding and inadequate dwelling units; high densities resulting from uncontrolled operations of the land market; inadequate supply of public services and infrastructural services; pollution of water and solid waste problems; increasing deterioration of the natural landscape; air and noise pollution (Megbolugbe, 2018). Aderamo & Ayobolu (2020) observed that the beauty of a city and the positive effect of urbanization on housing in a spatial structure pattern like Nigeria cities is the exclusive and reserved part of the city where the elite group resides.

Population Growth and Housing Affordability in Urban Centres

Population growth is a major underlying component of urbanization and factor for the demand of housing and without a new supply of dwellings; it pushes up the prices for both renting and purchasing dwellings. The resultant fall in housing affordability is a problem that is further compounded in many large cities by the change in living preferences that has resulted in a fall in household occupancy rates.

The rising population in the cities has been identified as a contributing factor in rising housing costs, to the extent that housing affordability has been declining in most urban centres in developing countries like Nigeria. Beginning with the definition of affordability to convey a notion of reasonable costs in relation to income, Aderamo & Ayobolu (2020) define housing affordability as a term usually denoting the maximum amount of income which households should be expected to pay for their housing. Joseph (2019).points out that housing affordability is expressed by the relationship between housing expenditure (rent or mortgage) and household income

Affordability is further eroded in many of the urban cities from the supply side of the equation, as new supply is needed to house the growth of population, which results in urban sprawl, which in turn is putting pressure to upgrade and extend existing infrastructure or provide new infrastructure. As the new supply is often in outlying areas of the city, the requirement for new infrastructure is more the norm and together with new environmental compliance costs and elevated quality expectations, it impacts on the cost of new housing supply (Aderamo & Ayobolu, 2020).

There is the risk that the affordability problem is becoming a self-perpetuating problem, because whilst developers cannot get a reasonable return on development, they will not provide the new housing supply needed to keep pace with the expected growth in population and thereby have existing dwelling prices driven higher.

Theoretical Framework

This study adopted the theories of Optimism and Pessimism. Optimism theory is a theory from positive psychology's founding father, Martin Seligman and Pessimism theory was founded by German philosopher Arthur Schopenhauer in the 19th century. Optimism theory argues that we can cultivate a positive perspective. With a more joyful outlook on life, we are in a much better position to enhance our wellbeing. Optimism theory holds the idea that says we can change our attitude and behaviours by recognizing and challenging our negativity among other things (Seligman & Csikszentmihalyi, 2000 cited in Eleje, 2021). On the other hand, Pessimism theory is a family of philosophical views that assign a negative value to life or existence. Philosophical pessimists commonly argue that the world contains an empirical prevalence of pains over pleasures, that existence is ontologically or metaphysically adverse to living beings, and that life is fundamentally meaningless or without purpose. Their responses to this condition, however, are widely varied and can be life-affirming.

This two opposing theories are apt for this study on Urbanization and Housing Facility in Enugu Urban, Enugu State of Nigeria. The optimistic theorists suggest that urbanization leads to greater productivity either by inducing innovation, producing innovation, or through creating greater economies of scale, specialization

or agglomeration. The pessimistic theorists posit that urbanization could impact negatively on economic performance if it is excessive or haphazard. This is because urban growth means high aggregation of people. With a larger population, each worker will have less productive factors (especially capital) both accumulated and non-accumulated to work with. As a result, even if output grows in the aggregate, per capita output will tend to be smaller. This pessimist view is based on the Malthusian tradition, though with substantial modification and improvements. Pessimists therefore suggest that rapid urbanization can only be beneficial, if accompanied by massive capital formation or other major stimuli which will be sufficient to off-set the low level equilibrium trap which may be created through rapid population increases (Eleje, 2021). Therefore, effective housing provision in this premise required policy implementation among other critical stimuli that drive urbanization and thus very imperative in the enhancement of sustainable housing provision.

Review of Empirical Literature

Urbanization and its effect on housing provision in urban centres have attracted empirical research especially in recent time. Scholars, for instance, have conducted numerous studies on that and have continued to do so from different perspectives. A review of some of the current empirical studies was carried out under this sub-heading.

Akinyemi, Hadiza & Salau (2020) carried a study titled *Assessing the Causes of Urbanization and Its Impact on Housing Quality in City of Lagos*. The research employed qualitative method, making use of secondary data due to the nature of information required and the time frame required to conduct the study, this is to say the researchers were of the post-positivist methodological philosophy of research. The data were sourced from journals, textbooks, online daily newspapers and publications and field survey. The result revealed that urbanization has negative effect on housing quality in the city of Lagos.

Relate study was carried by Enobong, Eziyi & Alagbe (2021) on the *Impact of Rapid Population Growth on Public Housing Schemes and the Influence on City Resilience*. This study evaluated selected public housing schemes in Abuja, Nigeria, to determine factors of the residents' perception of impacts of rapid population growth on the housing estates they lived. This was with a view to assessing how these factors influence city resilience. Data for this study were collected from questionnaire administered to 345 residents of the selected public housing estates. The data obtained were analysed using descriptive statistics, factor analysis and Principal Component Analysis (PCA) to identify the key factors. The result reveals a mean score of 3.59, showing that the residents were in agreement on a rapid increase in population of people living in the estates.

Danxuan & Yishao (2022) carried study on the *Influence Mechanism of Urban Spatial Structure on Urban Vitality Based on Geographic Big Data: A Case Study in Downtown Shanghai*. The results of the combined impact analysis shows that the job-housing balance degree, floor area ratio, open space ratio, and road network density are positively correlated with urban vitality, while population density, land use mix degree, average block area, rail transit station density, and rail transit station accessibility are negatively correlated with urban vitality.

Eleje (2021) carried a study on *Rapid Urbanization and Urban Housing Policy Implementation in Enugu Metropolis: Issues, Challenges and Prospects for Sustainable Development*. It was a qualitative study based on extensive literature review. The study identified salient features of the urbanization process in Enugu, Nigeria and the challenges they pose to adequate housing. These include rapid population growth and changing demographic structure; poverty and unemployment; difficulties in accessing housing delivery inputs; and lack of adequate capacity on the part of government.

Idoko1 & Ezeodili (2021) carried investigation on *Urbanization and Housing development in Enugu State*

Nigeria. The descriptive survey design was applied to the study, which was carried out in three local government areas within Enugu metropolis namely: Enugu South; Enugu East; and Enugu North. Through purposive and multi-stage random sampling technique, they study selected a total of 410 respondents out of an estimated population of 4, 101. The researcher used self-structured questionnaire instrument for data collection while mean score and standard deviation were used to analyze the research questions and t-test statistic used for hypotheses. The findings showed that: urbanization positively affects housing characteristics in Enugu state, urbanization affects house rents and choice of settlement in the state and urbanization had a significant effect on housing quality in Enugu state.

Nwalusi, Okeke, Anierobi & Nwosu (2022) carried a Study of the Impact of Rural-Urban Migration and Urbanization on Public Housing Delivery in Enugu Metropolis, Nigeria. It utilized a qualitative research method of direct observation and review of literature in which primary and secondary data were collected. The research results highlight some of the effects of Urbanization in the study area to include; gross housing shortage, increase housing rent and high land value in the city resulting to the emergence and expansion of many squatter settlements at the periphery of the city, incidence of haphazard situation of developments, change in land uses, violation of planning guidelines, suboptimal amenities and inadequate infrastructure as well as slum conditions.

Okorochoa & Obienusi (2022) study is on Assessment of Population pressure on Urban Housing in Ngwa Road, Ohanku and Obohia Parts of Aba South, Abia State Nigeria. The research data was collected through household survey, Aba South Town Planning Authority, National Population Commission and the Aba South Street Naming and House Numbering Office. The Principle Component Analysis (PCA), Principle Component Regression (PCR), standard deviation, weighted mean, percentages/proportions to analyze the data collected. The result showed that ease of access to commercial activities and educational level of heads of households are major factors encouraging population growth in the study area. The research revealed a housing demand and supply cluster estimate of 60.11% which was not considered statistically high.

METHODOLOGY

The study adopted a descriptive survey design. A descriptive survey method refers to a process of eliciting data from a target population through questionnaire or interview instruments, and subjecting such data to statistical analysis for the purpose of drawing conclusions. The use of descriptive survey design is necessary because it helped to ascertain the opinions of the respondents through the administration of questionnaires. This helped to seek answers to the issues raised in the research questions.

The study was conducted with total population of 969,074, comprising 774 staff of Enugu State Housing Development Corporation and 968,300 people of the three local governments in Enugu Urban (i.e. Enugu East 374,100; Enugu North 326,900; Enugu South 267,300) (National Bureau of Statistics, 2016 Nigeria Projected Population). A sample size of 400 was determined using the Taro Yamane formula, while the sample size for each stratum was calculated with Sam Kumar's proportional allocation formula. The purposive sampling technique was used to select the sample for the study. The instrument used for the study was a structured questionnaire. The instrument was validated by two experts from Department of Public Administration, Enugu State University of Science and Technology and two experts from the Department of Public Administration and Local Government, University of Nigeria Nsukka. Their corrections and suggestions were used to produce the final instrument. The instrument reliability was tested using 10 staff from federal establishments in Enugu State. The reliability coefficient was 0.86 using Cronbach Alpha formula. A total of 342 copies of the questionnaire were properly completed and returned for the study (Enugu State Housing Development Corporation was 48 and the residents of urban areas in Enugu State was 294). The data generated from the study was presented in a tabular form of frequencies and percentages in the five-point Likert scale format. The hypotheses were tested using Chi-square (χ^2) analysis at the

significant level of 0.05, when the computed value of chi-square (χ^2) is greater than ($>$) the table value of chi-square (χ^2), the null hypothesis is rejected.

Data Presentation and Analysis

In this section, the results of data collected are presented and analysed according to the research questions posed for the study. The hypotheses were also tested using Chi-square (χ^2) analysis at the significant level of 0.05 and the appropriate degree of freedom (DF).

Research Question One: What are the effects of urban spatial structure on housing quality in Enugu Urban, Enugu State of Nigeria?

Table 1: Effects of urban spatial structure on housing quality in Enugu urban

Options	Strongly Agree	Agree	No idea	Disagree	Strongly Disagree	Total
Slums and informal (squatter) settlements	184 54%	82 24%	14 4%	34 10%	28 8%	342 100%
Precarious locations prone to flooding, fire outbreak, environmental pollution and epidemics	193 56%	66 19%	19 5%	43 13%	23 7%	342 100%
Severe overcrowding and congested buildings with little or no ventilation	136 40%	79 23%	27 8%	63 18%	37 11%	342 100%
Contraction of high quality housing estates across many urban areas	199 58%	91 27%	6 2%	28 8%	18 5%	342 100%
Below standard rooms, parlour and kitchen with little or no parking spaces	207 61%	71 21%	11 3%	31 9%	22 6%	342 100%
Poor physical condition of the building as a result of lack of maintenance	221 65%	63 18%	14 4%	26 8%	18 6%	342 100%
Construction of multiple stories building in most urban centres in the state	199 58%	103 30%	4 1%	22 6%	14 5%	342 100%

Source: Field Survey, 2023

Table 1 reveals the effects of urban spatial structure on housing quality in urban centres in Enugu State. The table showed that the frequency of the respondents that strongly agree was above average in all the items. This pattern of responses indicated that the respondents accepted all the items as the effects of urban spatial structure on housing quality in urban centres in Enugu State. The items include: slums and informal (squatter) settlements, precarious locations prone to flooding, fire outbreak, environmental pollution and

epidemics, severe overcrowding and congested buildings with little or no ventilation, contraction of high quality housing estates across many urban areas, below standard rooms, parlor and kitchen with little or no parking spaces, poor physical condition of the building as a result of lack of maintenance, and construction of multiple stories building in most urban centres in the state.

Research Question Two: What are the effects of population pressure on housing affordability in urban centres in Enugu State?

Table 2: Effects of population pressure on housing affordability in urban centres in Enugu State

Options	Strongly Agree	Agree	No idea	Disagree	Strongly Disagree	Total
Uncontainable population growth leading to demand exceeding supply of houses inducing Landlords to increase rents at will	206 60%	91 27%	9 3%	21 6%	15 4%	342 100%
High and unaffordable house rent for an average household	188 55%	108 32%	6 2%	11 3%	29 8%	342 100%
Inclusion of high lawyer/legal and exorbitant agency fees	190 55%	122 36%	8 2%	13 4%	9 3%	342 100%
Scarcity of houses worsened by landlords trusting their houses on agents to exploit the house seekers	194 57%	97 28%	7 2%	38 11%	6 2%	342 100%
Inclusion of high caution fee and demand for a year to two years initial house rent	144 42%	141 41%	15 4%	24 7%	18 6%	342 100%

Source: Field Survey 2023

Table 2 reveals the effects of population pressure on housing affordability in urban centres in Enugu State. The presentation shows that the frequency of the respondents that strongly agree and agree was above average in all the items. This is a strong indication that the respondents affirmed that all the items were the effects of population pressure on housing affordability in urban centres in Enugu State. The items include: uncontainable population growth leading to demand exceeding supply of houses inducing landlords to increase rents at will, high and unaffordable house rent for an average household, inclusion of high lawyer/legal and exorbitant agency fees, scarcity of houses worsened by landlords trusting their houses on agents to exploit the house seekers, and inclusion of high caution fee and demand for a year to two years initial house rent.

Test of Hypothesis One: Urban spatial structure has significant effect on housing quality in urban centres in Enugu State.

Calculation of Degree of Freedom (DF)

$$DF = (R-1) (C-1)$$

Where R = Number of Row in the contingency table

C = Number of columns in the contingency table

$$DF = (2-1) (5-1)$$

$$= 1 \times 4$$

$$= 4$$

At 0.05 significant level and 4 degree of freedom the table value of chi-square = **9.49**

Table 3: Observed Frequency for hypothesis One

Categories of Respondents	Strongly Agree	Agree	No idea	Disagree	Strongly Disagree	Total
Enugu State Housing Development Corporation	8	19	3	13	5	48
Residents of Enugu urban areas	118	48	14	33	81	294
Total	126	67	17	46	86	342

Source: Survey Report, 2023

Table 4: Chi-Square (χ^2) Contingency Table for Hypothesis One

Observed Frequency (o)	Expected Frequency (e)	(o-e)	(o-e) ²	$\frac{(o-e)^2}{e}$
8	17.68	-9.68	93.7024	5.30
19	9.40	9.60	92.1600	9.80
3	2.39	-0.61	0.3721	0.37
13	6.46	6.54	42.7716	6.62
5	12.07	-7.07	49.9849	4.14
118	108.32	9.68	93.7024	0.87
48	57.60	-9.60	92.1600	1.60
14	14.61	-0.91	0.8281	0.28
33	39.54	-6.54	42.7716	1.08
81	73.93	7.07	49.9849	0.68
				$\chi^2 = \frac{\sum(o-e)^2}{e} = 30.74$

Source: Survey Report, 2023

Decision

Since the computed value of chi-square (χ^2) of 30.74 is greater than (>) the table value of chi-square (χ^2) of 9.49, hypothesis one is accepted. The statistical analysis therefore indicated that urban spatial structure has significant effect on housing quality in urban centres in Enugu State.

Test of Hypothesis Two: Population pressure has negative effect on housing affordability in urban centres in Enugu State

Table 5: Observed Frequency for hypothesis Two

Categories of Respondents	Strongly Agree	Agree	No idea	Disagree	Strongly Disagree	Total
Enugu State Housing Development Corporation	21	15	2	3	7	48
Residents of Enugu urban areas	65	108	27	73	21	294
Total	86	123	29	76	28	342

Source: Survey Report, 2023

Table 6: Chi-Square (χ^2) Contingency Table for Hypothesis Two

Observed Frequency (o)	Expected Frequency (e)	(o-e)	(o-e) ²	$\frac{(o-e)^2}{e}$
21	12.07	8.93	79.7449	6.61
15	17.26	-2.26	5.1076	0.29
2	4.07	-2.07	4.2849	1.05
3	10.67	-7.67	58.8289	5.51
7	3.93	3.07	9.4249	2.40
65	73.93	-8.93	79.7449	1.08
108	105.74	2.26	5.1076	0.05
27	24.93	-0.91	0.8281	0.28
76	65.33	10.67	113.8489	1.74
28	24.07	3.93	15.4449	0.64
				$= \frac{\sum(o-e)^2}{e} = 19.65$

Source: Survey Report, 2023

Decision

Since the computed value of chi-square (χ^2) of 19.65 is greater than (>) the table value of chi-square of 9.49, hypothesis two is rejected. The statistical analysis therefore indicated that population pressure has negative effect on housing affordability in urban centres in Enugu State.

DISCUSSION OF FINDINGS

The result of the first hypothesis revealed that urban spatial structure has significant effect on housing quality in urban centres in Enugu State. It was found that slums and informal (squatter) settlements, precarious locations prone to flooding, fire outbreak, environmental pollution and epidemics, severe

overcrowding and congested buildings with little or no ventilation, contraction of high quality housing estates across many urban areas, below standard rooms, parlour and kitchen with little or no parking spaces, poor physical condition of the building as a result of lack of maintenance, and construction of multiple stories building in most urban centres are the effects of urban spatial structure on housing quality in urban centres in Enugu State. The result is in agreement with the finding of Wizer & Obafemi (2019) who discovered that urban growth has significant influence on quality of houses in Port Harcourt city. The study revealed that the major problem associated with the housing in Port-Harcourt city was a dirty environment and insecurity.

This finding is also supported by the finding of Idoko & Ezeodili (2021) who their study showed that urbanization positively affects housing characteristics in Enugu state. This is because the current study indicated that urbanization has both negative and positive effect on quality of housing in urban centres in Enugu State. The positive effects include the contraction of high quality housing estates across many urban areas and the construction of multiple stories building in most urban centres in Enugu state. However, it is important to state that the urban spatial structure associated with urbanization has more negative effects than positive effects in Enugu state.

The result of the second hypothesis revealed that the population pressure has negative effect on housing affordability in urban centres in Enugu State. The descriptive statistics in research question two revealed that demand exceeding supply of houses inducing Landlords to increase rents at will, high and unaffordable house rent for an average household, inclusion of high lawyer/legal and exorbitant agency fees, scarcity of houses worsened by landlords trusting their houses on agents to exploit the house seekers, and inclusion of high caution fee and demand for a year to two years initial house rent are the effect of population pressure on housing affordability in urban centres in Enugu State. This finding is in line with the results of the Okorochoa & Obienusi (2022) who assessed population pressure on urban housing within Ngwa road, Obohia and Ohanku parts of Aba South and revealed a steady increase in the population size due to proximity to the market as most of those living in the area are traders and artisans and imbalance between housing stock and population in the study area result in exorbitant house rent that the average traders struggle to afford. This finding align with the result of Idoko & Ezeodili (2021) who discovered that urbanization affects house rents and choice of settlement in Enugu state to a great extent.

CONCLUSION AND RECOMMENDATIONS

It is clear from the results that urbanization has both negative and positive effects on housing provision in urban centres in Enugu State. Although the negative outweigh the positive effects, urbanization is an inevitable process, but unfortunately was not adequately planned for in the case of Enugu State. The challenges posed by rapid urbanization in a city like Enugu are many. The extent of the housing shortage in Enugu urban areas is enormous. The inadequacies are far-reaching and the deficit is both quantitative and qualitative but not insurmountable.

Tackling such challenges will require good knowledge of the characteristics of the people accessing the city as well as accurate projections of future urban growth and associated housing needs. While housing should not be treated in isolation, sustained effort including adequate budgetary allocations and strengthening of relevant agencies and institutions are required to address the protracted housing problem in urban centres in Enugu State. It is therefore pertinent at this point for Enugu State government to adopt proactive measures like the above mentioned and the recommendations in this study, in order to control the urbanization process and deal with the issue of housing provision decisively in Enugu urban areas.

Based on the findings and conclusion of the study, the following recommendations were made:

1. Urgent multi-faceted intervention is needed to address the housing deficit in Enugu metropolis both

qualitatively and quantitatively by adopting a pro-poor housing development strategy through public-private partnership.

2. The development of new estates should emphasize on low-income housing to create more houses affordable by the low income earners in Enugu urban.
3. Enugu State government can as well increase the salaries of state public servants, and as a matter of imperative strive to balance the development in rural and urban centre to an extent to reduce rural-urban migration, this can be done by taking some major state government establishments to the rural areas such as universities, hospitals among others.
4. There is a need to review various laws in charge of housing development and environmental management in Nigeria and Enugu State in particular, including other legislations that are concerned with lands and urban development. The laws should be more effective in terms of quality of houses, house rent, landlords' tenants' relationship, mortgage financing and obtaining of Certificate of Occupancy (C of O) among others.

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