

# Spatial Assessment of Housing Affordability Problems and Marketing Policy Improvement for Effective Housing Delivery in Asaba Metropolis, Southern Nigeria

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## Abstract

Recently, there have been gross shortages in housing in Asaba. This has led to high demand for accommodation, consequently increasing the prices of rent. This study assessed the spatial housing affordability problems and recommended marketing policy options to improve housing delivery in Asaba. This study deployed a survey research design. A modified Likert-type questionnaire was designed and used as an instrument for data gathering. The area was stratified into high, medium, and low-income residential areas, and Taro Yamane was used to get a sample size of 400 respondents. The simple random sampling techniques were used to distribute the questionnaire. Data were presented in tables, and the Kruskal-Wallis test was deployed for data analysis. The results indicate that high land costs (81.9%), increasing cost of construction materials and labour (89.5%), limited access to housing finance (98%), and the activities of real estate speculators (97.2%) were among factors affecting housing affordability and were significantly same across the area at  $P > 0.05$ . The consequences of these include forcing many residents to live in overcrowded conditions (78.9%), spending a large share of their income on rent or mortgage payments (89.2%), and many residents resorting to informal settlements due to unaffordable housing (61.5%). Asaba housing marketing businesses are making use of internet marketing approaches, including social media advertising. However, 73% of the respondents disagreed that internet marketing approaches have increased affordability or lowered rent prices. It is recommended in this study that the government should tackle the problem of exces-

sive interest rates and collateral to be paid for a mortgage. Also, subsidies by the government, rent control, and public-private partnership should be deployed by the government in the area.

### Keywords

Housing, Affordability, Housing-Delivery, Asaba, Housing-Shortages, Mortgage

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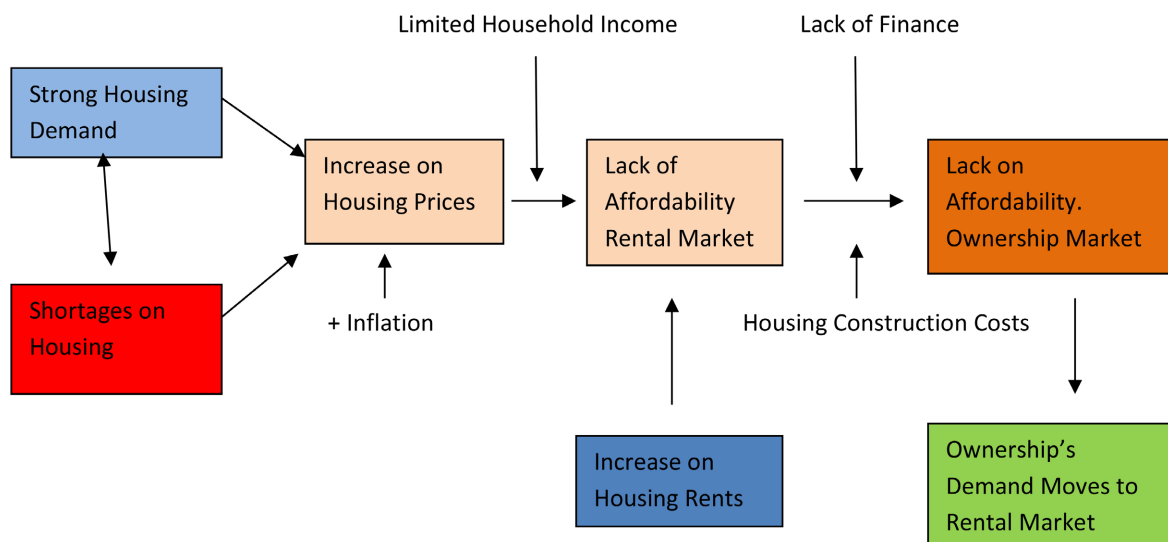
## 1. Introduction

The importance of housing cannot be overemphasized as it plays a crucial role in meeting one of the basic needs of man [1] [2], which is sheltering him from the day's stress and protecting him from harm [3] [4]. Housing is the construction of shelter as spaces where people live individually or collectively [5]. Housing refers to dwellings provided for people [6]. It is a basic human need and human right as it plays a vital role in shaping the quality of life for individuals, families, and communities at large [7]. The main types of houses include single-family houses, condominiums, manufactured houses, housing cooperatives, and apartment buildings or complexes, among others [8] [9]. Housing is the basis of stability for individuals and families, the centre of our social, emotional, and economic lives; a place to live in peace, security, and dignity [10]. It is a place that gives shelter, provides safety of lives and property, and a place to sleep after a hard day's work [11] [12]. Furthermore, housing is central to the realization of the global development goals as set out in the suite of global agreements signed in 2015 -16, including most significantly, the Sustainable Development Goals and the Agenda 2030, particularly SDG11 to make cities and human settlements inclusive, safe, resilient and sustainable [13].

Building or constructing houses for residents in an area (whether urban or rural) is one thing, affording same is another. More recently, residents grapple with challenges faced trying to pay rents among other daily needs that are to be met. This forms the basis of this study as individuals and families, especially low and medium-income earners are faced with housing affordability issues in Asaba, a growing metropolis in southern Nigeria.

Affordable housing is that which is adequate in quality and location and is not too expensive that it prohibits its occupants from meeting other basic living costs or threatens their enjoyment of the basic human rights [14]. Affordable housing is also defined as housing that is priced within the financial reach of low to middle-income earners [15]. As demonstrated in **Figure 1**, high demand for housing does not meet supply which subsequently results in high rent costs and affordability issues. By implication, the total cost of housing, including maintenance and utilities, should not exceed 30% of a household's income [16]. Furthermore, for housing to be affordable, it should be accessible concerning location, which ensures a

reasonable commute and associated costs [17]. Access to safe, affordable, and stable housing is also essential for a person's health, safety, and well-being, which should form part of housing affordability costs [18]. However, defining affordable housing comprehensively, transcends monetary and non-monetary factors, and also includes sustainability [19]. Monetarily, affordable housing means households can cover housing costs, which include rent/mortgage, maintenance, and utilities, without compromising their ability to meet other essential needs like healthcare, food, education, and so on [20]. On the other hand, non-monetary factors include the quality and safety of the housing, its accessibility to essential services, and its environmental sustainability [21]-[23]. Therefore, affordable housing should ensure households meet their basic needs, maintain a decent standard of living, and thrive in a sustainable and supportive environment [24] [25].



Source: Zachariou *et al.* [26].

**Figure 1.** Issues surrounding housing affordability.

However, in Asaba, the housing cost situation has reached a crisis phase. The function the city plays as the capital city of Delta State, among other functions of being a nodal town and playing host to many industries and institutions of higher learning, has caused a high demand for houses. This has attracted the invasion of quack and hungry housing marketers who act to inflate the cost of housing in the area. Today, a civil servant cannot afford to pay rent in the city, due in part to the fact that the cost of renting houses in the area is quite higher than the minimum wage. Added to these challenges is the fact that there are inbuilt costs associated with the annual rent that the housing agents add to the rents. As a result of these added costs, the agents (housing marketers) find a way to instigate the landlords to increase rent annually. When an existing tenant fails to pay, the agent brings in another tenant and collects another kickback. This circle has continued for years

and does not seem to be abating soon. Currently, low and middle-income earners can hardly afford a decent accommodation in the city. This forces these workers to rent houses in the peripheral areas or some cases, adjoining villages. This has its challenges for the occupants, who have to travel very far distances to and from work daily, with the attendant costs and risks [27].

Generally, there have been very scant studies on housing affordability in Delta State and Asaba. The thinking herein is that there are local socio-cultural peculiarities affecting the housing market in the area in contrast to another area. However, Ozabor *et al.* [27] attempted an investigation into the housing challenges in Asaba, however, their focus was on the rent costs only. Cascading from the above, the questions that come to mind include; what are the factors contributing to housing affordability issues in Asaba? What is the impact of housing affordability issues on residents of Asaba particularly low-income households? And what policy options could address the housing affordability crisis in Asaba? Thus, this study aimed to assess the Housing Affordability Issues in Asaba. And the objectives are to: identify the factors contributing to housing affordability issues in Asaba, to explore the impact of housing affordability issues on residents of Asaba, particularly low-income households, and to propose policy recommendations to address the housing affordability crisis in Asaba.

## 2. Literature Review

### 2.1. The Factors Contributing to Housing Affordability Issues in Asaba

Housing affordability in Asaba, which is the capital city of Delta State, Nigeria, has emerged with concerns emanating from multifaceted interrelated factors [28]. According to Nwalusi *et al.* [29], rapidity in urbanization and rural-urban migration substantially cause a strain in the housing infrastructure, and results in demand to outpace supply of housing. The strategic position of Asaba and its administrative significance have caused cum triggered population growth with no corresponding expansion in affordable housing units [30]. Furthermore, the high construction costs, which are caused by inflation and dependence on imported materials [31], exacerbate housing affordability crisis in Asaba [27]. Land tenure issues, particularly the complexities of land acquisition under customary laws, limit the participation of private sector in the housing development discussed in the area [32]. Government housing policies have been criticized for being poorly implemented or overly focused on high-income earners, which leaves low cum middle income households underserved [33]. Additionally, the absence of effective mortgage financing and formal credit systems affects and creates a debilitating gulf in homeownership [34]. These challenges put together worsen the socio-economic inequalities and fuel the proliferation of informal settlements in peri-urban areas of Asaba. Therefore, to attempt to solve these factors, a multi-sectorial approach, which will involve policy reforms, investment in low-cost housing, and improved urban planning strategies, must be triggered.

## 2.2. The Impact of Housing Affordability Issues on Residents of Asaba, Particularly Low-Income Households

Housing affordability problems have been identified to have profound impacts on the socio-economic well-being of low-income households in Asaba [27]. The expansion of the urban built area usually causes a significant hike in housing prices. This leaves most of the urban poor or low income earners with inability to fund rents costs. The challenges with this are that it leads to overcrowding, substandard living conditions, and a rise in informal settlements [35]. Low-income earners often allocate a disproportionate share of their income to rent, this limiting expenditure on essential needs such as food, healthcare, and education [16]. In Asaba, where housing supply is skewed toward middle- and upper-income groups, many households have to fall back to makeshift accommodations which lack basic amenities such as water and electricity [36]. This contributes to health risks and social marginalization embellished with other social disadvantages. According to Chen *et al.* [37], inadequate access to affordable housing also results in increased residential mobility and housing insecurity, which affects family stability and reduces community cohesion. Furthermore, the absence of social housing and poor enforcement of rental regulations increases tenant vulnerability to housing challenges [38]. The long-term consequence of all these housing challenges is a cycle of poverty and exclusion for a large segment of the population, consequently weakening broader goals of urban sustainability and inclusive development in Asaba.

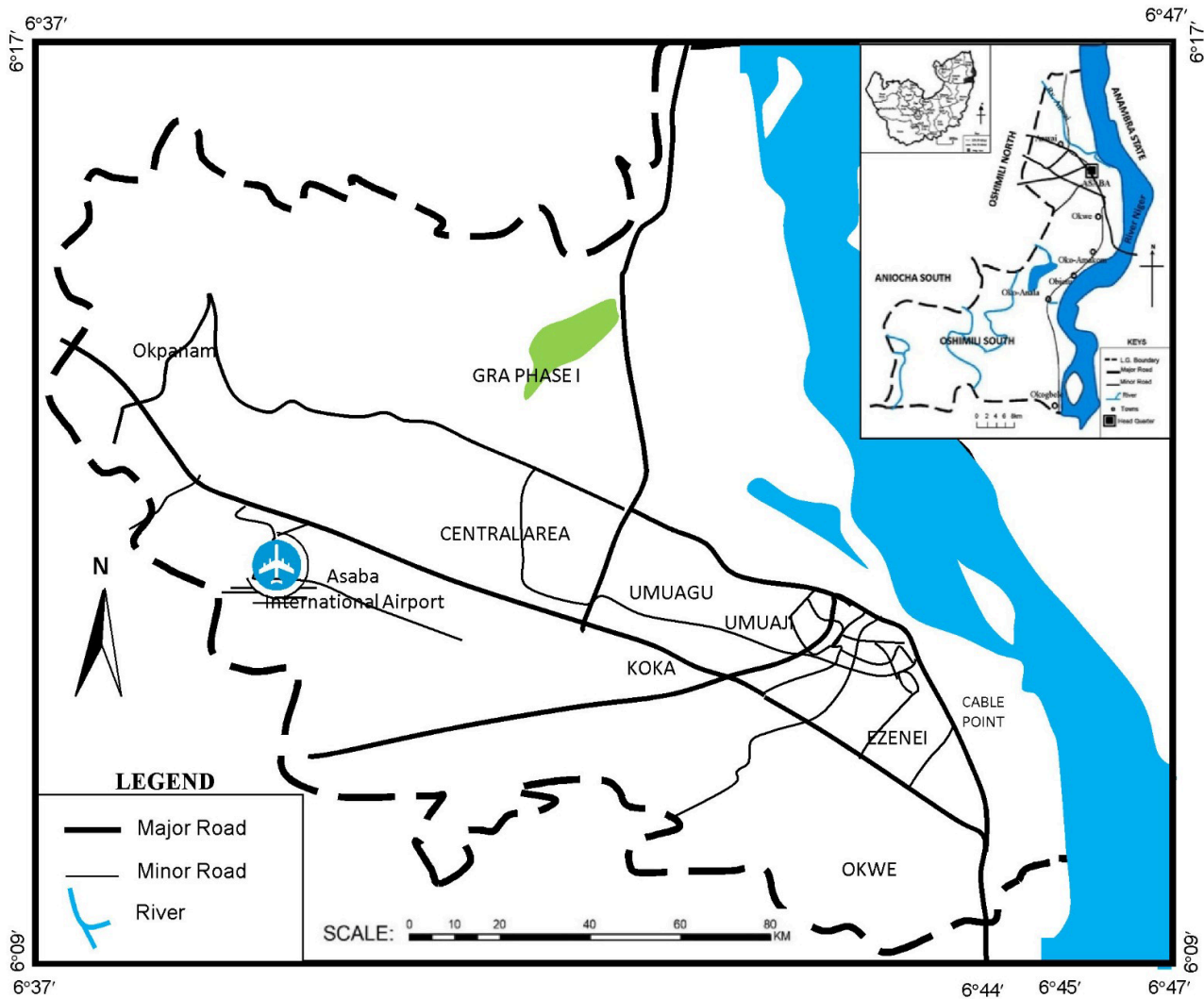
## 2.3. Policy Recommendations to Address the Housing Affordability Crisis in Asaba

Addressing housing affordability in urban Nigerian contexts like Asaba requires comprehensive and context-sensitive policy responses. Scholars [27] [39] agree that expanding affordable housing through public-private partnerships (PPPs) can significantly improve access for low- and middle-income earners. The offering of incentives that includes land access and tax relief by government can stimulate private investment in low-cost housing [40]. Effective urban planning is also very important. Poorly regulated land use in the Asaba region is a major contributor to urban sprawl and informal settlements development. Moen [41] advocated for inclusive zoning policies that prioritize mixed-income housing developments. The access to housing finance is germane. This is because it breaks the barrier for informal sector workers, causing innovative financing mechanisms such as micro-mortgages and housing cooperatives [42]. Rent control measures and tenant protection policies are recommended to prevent exploitation and ensure housing security for vulnerable populations [43]. In addition, promoting the use of local building materials can lower construction costs and improve affordability [44]. Also, upgrading existing informal settlements through infrastructure provision, rather than eviction, has been identified as a more humane and effective approach [45].

### 3. Materials and Methods

#### 3.1. Study Area

Asaba, the administrative capital of Delta State, Nigeria, is an emerging metropolis in the Niger Delta region of Nigeria, which has experienced rapid growth due to its strategic location and economic opportunities [46] [47]. However, civil service leads the economy and economic activities of the city’s inhabitants [48]. Asaba lies approximately at latitudes 6°10’ N and 6°15’ N, and longitudes 6°40’ E and 6°45’ E (see Figure 2).



Source: Modified after Ministry of Lands, Surveys and Urban Development, 2010.

**Figure 2.** Asaba showing the major settlements.

The greater Asaba metropolis occupies an area of about 300 square kilometres. Since becoming the administrative capital of Delta State from its creation on 27<sup>th</sup> August 1991, Asaba has grown in population to over half a million people, and it maintains a cosmopolitan population representative of the diverse cultures in

Delta State and across Nigeria [49] [50]. Over the years, the town has been experiencing influx of civil servants from the defunct Bendel State, immigration of job seekers, tourism potential, periodic employment of fresh civil servants by the Delta Government, and influx of job seekers from different parts of the state and country [51] [52]. Furthermore, Asaba displays a rich history of film production and holds the distinction of establishing the first film village in Nigeria, which serves as the centre of 'Nollywood', one of Africa's leading entertainment industries in terms of production and economic value. The movie industry has brought notable economic benefits to the city, generating employment opportunities and attracting international investments. Consequently, the film village and other cultural assets across the city serve as a gateway to sustainable urban development [53]. All of these have contributed largely to the rapid population growth experienced in Asaba, resulting in increased housing demand, which has surpassed supply and worsened affordability issues [27] [54].

Affordable housing is currently a pressing issue in Nigeria, both in urban and rural areas, with a significant portion of the population facing challenges in accessing it. Asaba, an emerging metropolis in the Niger Delta region of the country, is not left out as it also faces similar challenges. Adequate housing, recognized globally as a fundamental human right encompasses the physical structure of a dwelling, the availability of basic services, security of tenure, affordability, habitability and accessibility, as outlined in international agreements which include the Universal Declaration of Human Rights and the International Covenant of Economic, Social and Cultural Rights [55]. The inability of families to access affordable housing creates some bottlenecks for individuals and communities coupled with erratic climate issues [56] [57]. This hinders social and economic development, exacerbates poverty, and perpetuates social inequalities [58]. Consequently, individuals are unable to establish roots and build strong, supportive communities. The challenges faced by individuals and families concerning housing affordability in Asaba need to be addressed by both the public and private sectors to alleviate the sufferings of the affected population as well as find a lasting solution to the problem.

### 3.2. Methods

This study deployed the survey research design to explore the issues surrounding housing affordability in Asaba. The study used only primary data sources, using a questionnaire. The questionnaire type deployed was the 4-point, modified Likert-type questionnaire [59]. This questionnaire was designed to elicit information on factors contributing to housing affordability issues in Asaba; the impact of housing affordability issues on residents of Asaba, and marketing strategies cum policy options to address the housing affordability crisis in Asaba. The questionnaire was calibrated in four sections. The first section solicited information on the bio data of the respondents, while the remaining three sections solicited information about factors contributing to housing affordability issues in Asaba b) the impact of hous-

ing affordability issues on residents of Asaba, and marketing strategies cum c) policy options to address the housing affordability crisis in Asaba. The first was on the area was stratified into high, medium, and low-income residential areas in Asaba following the stratification of [27]. The population of these areas was enumerated and determined, and was subjected to the Taro Yamane equation (equation 1) to get the researchable sample size of 400. This population was later distributed to the area proportionally (see **Table 1**). Furthermore, the inclusive criteria were heads of households that have resided in the area for at least 5 years and those heads of households that understood English language. After determining all these, the researcher administered the questionnaire on the respondents using the random sampling techniques.

**Table 1.** Population and sample size for the study.

Residential Type	Population	Taro Yamane Sample
Low income	149,324	163
Medium income	118,231	129
High income	98,458	108
Total	366,013	400

$$S = \frac{N}{1 + N(e)^2} \tag{Equation 1}$$

Where:

S = Sample size

e = Margin of error assumed (0.05)

1 = Theoretical constant

N = Number of population

$$S = \frac{366013}{1 + 366013.(0.05)^2}$$

$$S = \frac{366013}{1 + 366013.(0.0025)}$$

$$s = \frac{366013}{915.035}$$

S = 400

After determining the sample size as per the residential areas, the questionnaire was distributed to the respondents using the simple random sampling techniques. However, before the questionnaire was administered, the instrument was subjected to validity and reliability. The questionnaire was validated using the help of experts and psychometricians [60]-[62], while reliability was achieved using the test-retest option. This was achieved when the researchers conducted repeated surveys on 10% of the total respondents in a space of three weeks. The correlation of both surveys ranged between r 0.89 to r 0.94 in all items [63]. Additionally, the

inclusive criteria included a) a resident who pays rent; b) a tenant who has resided in the area for at least a rent cycle (*i.e.*, above 1 year). The exclusive criteria were a) visitors were not allowed to respond to the instrument; b) dependents were also not allowed to respond to the instrument [64] [65].

Data were presented in tables. Statistics applied included the weighted means, the percentages, and Kruskal-Wallis were all applied. The Kruskal-Wallis test was deployed to assess spatial variation in rent affordability issues and impacts of the housing costs on the locals. All the analyses were performed in the environment of Statistical Package for the Social Sciences (IBM/SPSS version 27).

#### 4. Results and Discussion

Housing affordability is a significant challenge in urban centres, particularly in rapidly growing cities such as Asaba, Nigeria. The data from **Table 2** presents various factors contributing to housing affordability issues, including land and construction costs, limited access to mortgage financing, and government policies. This discussion interprets the findings to existing literature to provide a comprehensive understanding of the problem. The results indicate that 81.9% of respondents (SA = 32.2%, A = 49.7%) believe that high land costs hinder housing affordability, with a weighted mean (WM) of 3.0. This aligns with research by Muoneke [66], who identified land speculation and inflation as primary factors driving housing unaffordability in urban areas. Similarly, Otundo-Richard [30] found that land tenure systems in Nigeria contribute to inflated land prices, making it difficult for low- and middle-income earners to acquire property.

A substantial 89.5% of respondents agreed that the increasing cost of construction materials and labour exacerbates housing unaffordability (WM = 3.3). Inflation and Nigeria's heavy dependence on imported construction materials drive the price of new home construction in Nigeria, as shown by research by Chiwuzie and Dabara [67]. Soni *et al.* [68] also argue in the same vein that local material consumption should be encouraged to keep these costs in check.

The data shows that 98% of respondents identified limited access to housing finance as a major constraint (WM = 3.3). This supports findings by Owotemu and Kale [69], who noted that high-interest rates, strict collateral requirements, and the underdevelopment of the mortgage sector hinder homeownership in Nigeria. Expanding access to affordable mortgage financing is essential for improving housing affordability [70]. Approximately 75.9% of respondents agreed that regulatory policies increase housing costs (WM = 3.0). Research by Saiz [71] highlights that excessive taxes, zoning laws, and stringent development regulations create artificial housing shortages and up costs. The Nigerian housing sector is similarly burdened by lengthy approval processes and high transaction fees [72].

Real estate speculation emerged as a significant factor, with 97.2% agreement among respondents (WM = 3.5). Frayne *et al.* [73] argue that speculative investments distort the housing market by inflating prices beyond the reach of average citizens. This phenomenon is prevalent in urban centres where property is often

used as an investment vehicle rather than for residential purposes. Insufficient supply of affordable housing, with a WM of 2.8, 69.1% of respondents agreed that housing supply fails to meet demand. The United Nations Human Settlements Programme [74] confirms that African cities often struggle to keep pace with rapid urbanization, resulting in housing shortages. To address this, public-private partnerships (PPPs) and mass housing initiatives should be promoted [75].

**Table 2.** Factors contributing to housing affordability issues in Asaba.

Items	SA (%)	A (%)	SD (%)	D (%)	Total (%)	WM
The high cost of land in Asaba makes it difficult for low- and middle-income earners to afford housing	128 (32.2)	198 (49.7)	23 (5.8)	49 (12.3)	398 (100)	3.0
The rising cost of building materials and labour significantly contributes to the unaffordability of housing in Asaba	173 (43.5)	183 (46)	18 (4.5)	24 (6)	398 (100)	3.3
Limited access to housing loans and mortgage financing prevents many residents from owning homes	133 (33.4)	257 (64.6)	2 (0.5)	6 (1.5)	398 (100)	3.3
Government policies, taxes, and regulations increase the cost of housing development in Asaba	144 (36.2)	158 (39.7)	35 (8.8)	61 (15.3)	398 (100)	3.0
Real estate speculation and investment drive up housing prices, making homes unaffordable for average residents	203 (51)	184 (46.2)	4 (1)	7 (1.8)	398 (100)	3.5
The supply of affordable housing units in Asaba is insufficient to meet the growing demand	104 (26.1)	171 (43)	58 (14.6)	65 (16.3)	398 (100)	2.8
Low-income levels of many residents contribute to their inability to afford decent housing	76 (19.1)	134 (33.7)	45 (11.3)	143 (35.9)	398 (100)	2.4
Rapid urbanization and population growth in Asaba have led to increased housing costs	111 (27.9)	185 (46.5)	49 (12.3)	53 (13.3)	398 (100)	2.9
The high cost of renting in Asaba makes it difficult for many households to secure adequate housing	152 (38.2)	163 (41)	36 (9)	47 (11.8)	398 (100)	3.1
The government does not provide enough support or incentives for affordable housing development in Asaba	286 (71.9)	112 (28.1)	0 (0)	0 (0)	398 (100)	3.7

While 52.8% of respondents disagreed that low incomes are a primary barrier to housing affordability (WM = 2.4), the relationship between earnings and housing costs remains crucial. Stone [76] introduced the “residual income approach,” which suggests that housing should be considered affordable only if individuals have sufficient income left after housing expenses. However, 74.4% of respondents agreed that urbanization contributes to rising housing costs (WM = 2.9). The findings are consistent with Joseph *et al.* [77], who state that population influx leads to increased housing demand and price surges. Urban planning strategies that incorporate mixed-income housing developments could help alleviate these pressures.

A significant 79.2% of respondents acknowledged that high rental prices contribute to housing unaffordability (WM = 3.1). Research by Aiken *et al.* [78] sug-

gests that rent control policies and rental assistance programs can provide relief to low-income households. The strongest consensus among respondents (100%) was on the lack of government support for affordable housing (WM = 3.7). Umana *et al.* [79] emphasize that government intervention through subsidies, land allocation, and social housing programs is essential for addressing affordability challenges.

To compare respondents' the spatial perceptions of factors making homes affordable in Asaba, the Kruskal-Wallis test was used (Table 3). The results show that there were no significant factors at ( $p > 0.05$ ), implying that there were no spatial differences in perception that were significant among the three groups of respondents. The p-value for the high cost of land was 0.07, which is higher than the standard significance level of 0.05, and the chi-square ( $\chi^2$ ) was 2.1. This shows that there is no variation in spatial categories in opinions regarding the cost of land as a limiting factor for the affordability of homes. In concert with previous research, the identical outcome that land cost is an issue plaguing all areas equally, regardless of geography, is borne out here. Once more, the increase in construction material and labour costs was associated with a chi-square of 3.1 and a p-value of 0.08. Statistically, it does not matter, though it's higher than some other things. It appears as if all the city cares about are the price. Previous studies have also indicated the fact that material and labour costs affect home affordability [80].

Perceived access to home finance is not highly differentiated by spatial location, as indicated by a chi-square value of 2.4 and a p-value of 0.14. The finding is similar to a study conducted by Ghani [81], who equally concluded that the availability of mortgages is a problem across Nigeria and not in any specific location. A chi-squared value of 2.5 and a p-value of 0.12 were found for government policies, taxes, and regulations as a perception of home unaffordability. It appears that people from all over the world have the same sentiment when it comes to government intervention. Consistent with previous literature [82], the results show that regulatory issues in housing policy impact all geographies in the same manner. A chi-square value of 1.5 and a p-value of 0.06 was found when real estate speculation's role was examined in the context of investment.

This means that the impact of real estate speculation is still not statistically significant. This finding contradicts those results which show that speculation impacts centre metropolitan areas more compared to peripheral metropolitan areas, such as the work of Gameda *et al.* [83]. Surprisingly, there is no considerable regional variation in the perception of supply shortages of affordable housing, with a chi-square statistic of 1.9 and a p-value of 0.19. Similarly, research by Haffner and Hulse [84] indicates that all cities are impacted to more or less the same extent by the shortage of affordable housing. Low-income levels received a chi-square value of 1.1 and a p-value of 0.21, reinforcing the idea that financial constraints are a widespread issue rather than a spatially dependent one. This aligns with findings by Ezennia [85], who highlighted income levels as a critical barrier to home ownership across Nigeria.

**Table 3.** Kruskal-Wallis test summaries comparing the spatial perception of respondents on factors contributing to housing affordability issues in Asaba.

Items	n	$\chi^2$	df	Asymp. Sig	Remark
The high cost of land in Asaba makes it difficult for low- and middle-income earners to afford housing	398	2.1	2	0.07	Not significant
The rising cost of building materials and labour significantly contributes to the unaffordability of housing in Asaba	398	3.1	2	0.08	Not significant
Limited access to housing loans and mortgage financing prevents many residents from owning homes	398	2.4	2	0.14	Not significant
Government policies, taxes, and regulations increase the cost of housing development in Asaba	398	2.5	2	0.12	Not significant
Real estate speculation and investment drive up housing prices, making homes unaffordable for average residents	398	1.5	2	0.06	Not significant
The supply of affordable housing units in Asaba is insufficient to meet the growing demand	398	1.9	2	0.19	Not significant
Low-income levels of many residents contribute to their inability to afford decent housing	398	1.1	2	0.21	Not significant
Rapid urbanization and population growth in Asaba have led to increased housing costs	398	3.2	2	0.10	Not significant
The high cost of renting in Asaba makes it difficult for many households to secure adequate housing	398	1.6	2	0.14	Not significant
The government does not provide enough support or incentives for affordable housing development in Asaba	398	1.9	2	0.16	Not significant

The effect of rapid urbanization and population growth had a chi-square value of 3.2 and a p-value of 0.10, remaining statistically insignificant. While urban expansion has been linked to housing shortages [86], this study suggests that residents in different areas perceive the challenge in a relatively uniform manner. High cost of renting with a chi-square value of 1.6 and a p-value of 0.14, rental costs were not perceived differently across spatial locations. This supports the conclusions of Morris *et al.* [87], who found that rental affordability is a general challenge across different urban areas. The government's role in affordable housing development had a chi-square value of 1.9 and a p-value of 0.16, indicating no significant spatial perception differences. This corroborates findings by Eja and Ramegowda [88], who noted that limited government intervention is seen as a general problem in Nigeria.

Generally, Kruskal-Wallis test results suggest that the perception of factors contributing to housing affordability issues in Asaba does not differ significantly across spatial groups. This indicates that these challenges are perceived as city-wide issues rather than problems affecting specific locations. The findings align with existing literature, which highlights these factors as prevalent in urban housing markets across Nigeria and other developing economies. Future research

could explore whether variations exist at finer geographic scales or when additional socio-demographic variables are considered.

**Table 4.** The impact of housing affordability issues on residents of Asaba.

Items	SA (%)	A (%)	SD (%)	D (%)	Total (%)	WM
Housing affordability issues have forced many residents to live in overcrowded conditions	121 (30.4)	193 (48.5)	41 (10.3)	43 (10.8)	398 (100)	
High housing costs have led to increased financial stress among residents	137 (34.4)	158 (39.7)	49 (12.3)	54 (13.6)	398 (100)	3.0
Many residents in Asaba spend a large portion of their income on rent or mortgage payments, leaving little for other necessities	231 (58)	124 (31.2)	21 (5.3)	22 (5.5)	398 (100)	2.9
Due to high housing costs, many residents are forced to live in informal settlements or substandard housing	127 (31.9)	132 (33.2)	44 (11.1)	95 (23.9)	398 (100)	3.4
Housing affordability problems have caused some families to relocate to distant or less developed areas	144 (36.2)	163 (41)	36 (9)	55 (13.8)	398 (100)	2.7
Limited access to affordable housing has negatively impacted the quality of life for residents in Asaba	143 (35.9)	157 (39.4)	38 (9.5)	60 (15.1)	398 (100)	3.0
High housing costs have reduced residents' ability to save for future financial security	100 (25.1)	139 (34.9)	84 (21.1)	75 (18.8)	398 (100)	3.0
Housing affordability problems have led to an increase in homelessness in Asaba	98 (24.6)	154 (38.7)	88 (22.1)	58 (14.6)	398 (100)	2.7
Many residents have had to take on additional jobs or loans to afford housing in Asaba	148 (37.2)	161 (40.5)	39 (9.8)	50 (12.6)	398 (100)	2.7
The inability to afford quality housing has negatively impacted the health and well-being of residents	56 (14.1)	79 (19.8)	148 (37.2)	115 (28.9)	398 (100)	3.0

The findings from **Table 4** highlight significant challenges faced by residents of Asaba due to housing affordability issues. These findings align with global and regional studies on the socio-economic impacts of housing unaffordability. A majority of respondents (78.9%) agreed that housing affordability issues have forced many residents to live in overcrowded conditions. Overcrowding is a common consequence of high housing costs, as families often share accommodations to reduce expenses [74]. Similar trends have been observed in other urban centres, where the lack of affordable housing pushes low-income residents into high-density living arrangements [89]. On the other hand, the results indicate that 74.1% of respondents experience financial stress due to high housing costs. Financial strain resulting from housing expenses can reduce disposable income, limiting access to healthcare, education, and savings for the future [76]. Studies in Nigerian cities, including Lagos and Abuja, corroborate that high housing costs significantly impact residents' economic stability [90]. A substantial portion of respondents (89.2%) acknowledged that they spend a large share of their income on rent

or mortgage payments, leaving little for other necessities. This mirrors the housing cost burden threshold defined by the U. S. Department of Housing and Urban Development [91], which states that households spending more than 30% of income on housing are cost-burdened. In Nigerian urban areas, this is exacerbated by rising inflation and stagnant wages [92].

About 65.1% of respondents agreed that many residents resort to informal settlements due to unaffordable housing. This trend is also noted in studies on urban housing in sub-Saharan Africa, where informal settlements emerge as a coping mechanism [93]. Previous research has shown that the failure of the government to provide houses in Asaba exacerbates the problem [94]. In accordance with escalating housing prices, 77.2% of households have shifted to more underdeveloped neighbourhoods, according to the survey. Housing fees have been set to rise with urban sprawl and peri-urban migration patterns, according to several studies [95]. Asaba's peripheral settlements are growing rapidly, often lacking adequate infrastructure and social services, which further affects residents' quality of life. Approximately 75.3% of respondents believe that limited access to affordable housing has negatively affected their quality of life. Literature suggests that inadequate housing is associated with stress, poor health, and lower overall well-being [96]. Asaba's case aligns with findings in other African urban centres, where limited access to quality housing impacts social and economic well-being [18]. The survey results indicate that 60% of respondents experience reduced financial security due to high housing costs. Similar findings have been reported in housing affordability studies in Nigeria and other developing countries [40]. The inability to save limits economic mobility and resilience against financial shocks. Homelessness due to high housing costs was acknowledged by 63.3% of respondents. Studies have shown that housing affordability is a major determinant of homelessness [97]. Without targeted policy interventions, homelessness in Asaba may continue to rise, similar to trends observed in rapidly urbanizing African cities [94].

About 77.7% of respondents reported that they have had to take on additional jobs or loans to afford housing. Findings that report that housing costs can put people in a precarious financial position are consistent with this [98]. Nigerian microfinance banks have attempted to help by offering small housing loans, but unfortunately, they are not affordable for everyone [99]. A notable percentage of the respondents (33.9%) reported that their health and happiness have been impacted by the inability to afford good housing. Poor housing is associated with mental and physical illnesses, as noted by research. Poor health in the impoverished neighbourhoods is exacerbated by poor ventilation, congestion, and filthy living conditions [100].

Findings of **Table 4** align with what has been established in the literature heretofore regarding the effects of home affordability among residents. Unaffordable housing makes people financially stressed, with a reduced quality of life, and more likely to be homeless, according to studies [37]. Furthermore, there is ample evi-

dence that the government has no choice but to intervene when it comes to tackling the issue of affordability in Nigeria's urban housing (Sunday *et al.*, 2021). Just like other large cities, Asaba is experiencing a critical deficiency of affordable housing [74].

**Table 5** displays the findings of the Kruskal-Wallis test, and these findings show how responses from the respondents to the question of the impact of residential affordability issues on Asaba residents vary geographically. The impacts of residential affordability vary in terms of statistical significance by geographical areas.

Several housing-related effects display that there are widespread spatial disparities. One of the indicators that perceptions of overcrowding vary across Asaba's regions is crowded living conditions ( $\chi^2 = 4.1$ ,  $p = 0.05$ ). This accords with previous research that laid down that high population density of slums and urban informal settlements is a result of the exorbitant cost of housing [74].

**Table 5.** Kruskal-Wallis test summaries comparing the spatial perception of respondents on the impact of housing affordability issues on residents of Asaba.

Items	n	$\chi^2$	df	Asymp. Sig	Remark
Housing affordability issues have forced many residents to live in overcrowded conditions	398	4.1	2	0.05	Significant
High housing costs have led to increased financial stress among residents	398	2.1	2	0.25	Not significant
Many residents in Asaba spend a large portion of their income on rent or mortgage payments, leaving little for other necessities	398	2.9	2	0.07	Not significant
Due to high housing costs, many residents are forced to live in informal settlements or substandard housing	398	1.8	2	0.31	Not significant
Housing affordability problems have caused some families to relocate to distant or less developed areas	398	6.7	2	0.02	Significant
Limited access to affordable housing has negatively impacted the quality of life for residents in Asaba	398	7.3	2	0.04	Significant
High housing costs have reduced residents' ability to save for future financial security	398	8.9	2	0.00	Significant
Housing affordability problems have led to an increase in homelessness in Asaba	398	12.1	2	0.00	Significant
Many residents have had to take on additional jobs or loans to afford housing in Asaba	398	2.5	2	0.08	Not significant
The inability to afford quality housing has negatively impacted the health and well-being of residents	398	1.4	2	0.15	Not significant

Secondly, a large difference exists in housing affordability between the central city and periphery, as seen through people relocating to far or underdeveloped areas ( $\chi^2 = 6.7$ ,  $p = 0.02$ ). Großmann *et al.* [101] found that low-income people are forced to live on the outskirts of cities due to housing affordability issues, making

them spend more time traveling and socially disconnecting them. Quality of life is also significantly determined by the lack of affordable housing ( $\chi^2 = 7.3$ ,  $p = 0.04$ ). Lower living standards, for instance, lower access to healthcare, education, and employment, have been associated with housing affordability [18]. Additionally, the financial stress of the residents is also highlighted by their inability to save money because of high housing expenditure ( $\chi^2 = 8.9$ ,  $p = 0.00$ ). Unnecessary high expenditure on housing consumes disposable income, thus undermining economic stability and stability in the long run, as indicated by studies [76].

There is a significant relationship between homelessness and affordability of housing ( $\chi^2 = 12.1$ ,  $p = 0.00$ ), another main finding. The literature confirms that increasing housing costs and lack of affordable housing are important determinants of homelessness in cities, which supports this statement [102].

On the other hand, there are a few pieces of data that do not show comparatively dissimilar results depending on where you glance. These include mortgage costs taking a large proportion of household income ( $\chi^2 = 2.9$ ,  $p = 0.07$ ), having to borrow money or work extra hours to make ends meet ( $\chi^2 = 2.5$ ,  $p = 0.08$ ), and overall financial strain as a result of not being able to afford the cost of housing ( $\chi^2 = 2.1$ ,  $p = 0.25$ ). The fact that none of these characteristics reached statistical significance indicates that the issue of affordable housing is not limited to any one section of Asaba, but rather it is present across the whole area. This agrees with the observation of Rodríguez-Pose and Storper [103] that finance-related barriers to housing are experienced by urban citizens at large. Perceived effects of housing affordability on wellbeing and health ( $\chi^2 = 1.4$ ,  $p = 0.15$ ) and being forced to live in informal or inadequate housing ( $\chi^2 = 1.8$ ,  $p = 0.31$ ) also are not statistically significantly different between regions. Based on the body of evidence regarding housing disparities in new urbanising cities, this means unhealthy housing environments and related health problems are widespread across the city [15].

There is consistency between the Kruskal-Wallis test findings and the general body of literature on the effects of housing affordability on the population of developing cities. The issues that accompany affordable housing are complex and vary in intensity depending on one's location within a city, according to research by Adedeji [74]. Current research connecting housing costs to urban migration patterns is supported by the prevalence of issues like homelessness, financial insecurity, and migration to less affluent areas [104].

On the other hand, affordability problems are widespread instead of being concentrated in any one place, considering that some of the economic-related stresses, such as financial strain and severe rental burdens, were not statistically significant. This observation is consistent with that of Stone [76], who posits that middle-income groups are not immune to the effects of housing affordability problems, although they are more pronounced among low-income communities.

**Table 6** shows the results of a range of housing marketing campaigns in Asaba and their effect on the cost of housing. It is unclear whether e-marketing has had any effect on housing affordability, even though it has been tried and tested in the

sector (WM = 2.9). Asaba marketing businesses are making use of internet marketing approaches, including social media advertising, on a large percentage of the respondents (42%). With 42% strongly disagreeing and 31.7% disagreeing (WM = 2.0), the reaction was mostly unfavourable when asked whether these internet marketing approaches have increased affordability or lowered rent prices. It would appear that digital marketing has the potential to make property information more accessible, but not necessarily make properties more affordable. The Asaba findings indicate that digital marketing interventions have not been utilized effectively to address affordability, which contrasts with evidence elsewhere where digital marketing has been established to reduce transaction costs and increase market efficiency [105]. Reasons behind such a gap may lie in obstinate economic issues like high-priced real estate and low purchasing power that advertising cannot resolve.

**Table 6.** Housing marketing strategies in Asaba and impacts on housing affordability.

Items	SA (%)	A (%)	SD (%)	D (%)	Total (%)	WM
There have been attempts at utilizing digital marketing strategies for marketing houses in Asaba	118 (29.6)	167 (42)	55 (13.8)	58 (14.6)	398 (100)	2.9
Digital marketing and social media advertising have improved housing affordability and rent costs in Asaba	34 (8.5)	71 (17.8)	167 (42)	126 (31.7)	398 (100)	2.0
Developers in Asaba are using flexible payment plans to attract more tenants	45 (11.3)	47 (11.8)	145 (36.4)	161 (40.5)	398 (100)	1.9
Promotional discounts and mortgage incentives have increased interest in new housing developments	13 (3.3)	23 (5.8)	169 (42.5)	193 (48.5)	398 (100)	1.6
Virtual property tours and online listings have made house-hunting easier for tenants and buyers in Asaba	21 (5.3)	33 (8.3)	170 (42.7)	174 (43.7)	398 (100)	1.8
Real estate agencies in Asaba are effectively targeting first-time homebuyers with tailored marketing strategies	100 (25.1)	101 (25.4)	123 (30.9)	74 (18.6)	398 (100)	2.6

Equally, the use of flexible payment options by developers as a tool for luring in tenants received low levels of agreement (WM = 1.9), wherein 36.4% of them disapproved and 40.5% strongly disagreed. It might be that people are simply not interested in having flexible payment arrangements because, despite them being in existence, not everybody has ready access to them or their benefits easily. Although Asaba statistics show that such strategies have not done much to enhance affordability, a study by [27] shows that flexible payment terms can increase homeownership rates, especially in developing markets. And with 48.5% strongly disagreeing and 42.5% disagreeing (WM = 1.6), there is no doubt that promotional discounts and mortgage incentives have contributed little to nothing to the housing affordability of Asaba. In areas of high-cost development with limited access to mortgages, incentives can stimulate short-term sales, but they do not solve the issue of affordability or its causes [106]. Virtual property tours and

online listings also trend in the same direction, where 43.7% strongly disagree and 42.7% disagree that house hunting has been facilitated by such developments (WM = 1.8). Despite the extensive use of internet resources in property markets across the world [107], there seems to have been no or minimal impact from them in Asaba. This could be due to a lack of extensive penetration among property firms, insufficient proper listings, or poor digital literacy.

Luckily, there was a slight improvement in concurrence (WM = 2.6) towards real estate firms' focused advertising efforts on first-time homebuyers, with 25.1% strongly concurring and 25.4% concurring. That some Asaba agencies are attempting to acquire new clients is a welcome development, but the success of these efforts remains to be seen. Tually *et al.* [108] found that homebuyer levels have risen in similar areas after utilizing targeted marketing strategies such as rent-to-own arrangements and government-supported financing. Outcomes indicate that online promotions, payment plans, and discounted promotions are housing marketing strategies for Asaba, yet they did not significantly improve affordability.

These findings are consistent with current evidence in the literature that structural interventions in the form of housing financing reforms, policy incentives, and cost-reducing measures are required to make housing more visible and accessible [109]. To raise the effectiveness of Asaba's housing marketing, builders and policymakers are required to participate in integrating innovative marketing strategies with economic practicability options like subsidized home mortgages and government-promoted housing programs. **Table 7** reveals the result of which policy changes Asaba's residents think will help the affordability of housing. The results indicate that there is a high level of agreement on which is the best method through which housing would become affordable, and it is by implementing public-private partnerships, rent control, government subsidies, and locally made building materials.

A lesser level of agreement was reported for policy reactions like urban development upgrades and land use legislation reforms, reflecting doubt over whether they could help with affordability. The weighted mean (WM) for government assistance towards low-income housing was 2.9, and 46.5% of the respondents expressed the view that the policies would make housing more affordable. This aligns with research that shows low-income workers can have a considerable decrease in their financial load by experiencing direct government intervention in housing subsidies [110]. Similarly, with 48.5% of the participants concurring that rent control measures would avoid excessive rent rises, rent control schemes received widespread support (WM = 3.0).

Rent control has been discovered to stabilize rental markets in some research, while other studies have shown that it discourages the construction of new housing, sparking a fierce debate in the economic literature [111].

There was moderate support for the increase in access to mortgage financing (WM = 2.7), with 32.2% agreeing and 23.1% disagreeing. Becoming a homeowner is one of the many alternatives available, which can be made possible through ac-

cessing a mortgage, but the same is not possible in emerging markets due to high interest rates and tight lending terms [112]. Since 38.7 percent strongly believed that PPPs could enhance the supply of affordable housing, public-private partnerships (PPPs) were highly supported (WM = 3.0).

Public-private partnerships (PPPs) have improved the delivery of houses in most countries [109]. With 40.5% strongly disagreeing and 34.7% disagreeing, there was broad disagreement regarding the need to tighten land-use legislation (WM = 2.0). This may be on account of fears that too stringent regulations and zoning requirements will drive up the cost of development instead of minimizing it [113].

**Table 7.** Policy recommendations to address the housing affordability crisis in Asaba.

Items	SA (%)	A (%)	SD (%)	D (%)	Total (%)	WM
Government subsidies for low-income housing will improve affordability in Asaba	114 (28.6)	185 (46.5)	45 (11.3)	54 (11.6)	398 (100)	2.9
Implementing rent control policies will help reduce excessive rent increases	134 (33.7)	193 (48.5)	15 (3.8)	56 (14.1)	398 (100)	3.0
Expanding access to mortgage financing will make homeownership more achievable	113 (28.4)	128 (32.2)	65 (16.3)	92 (23.1)	398 (100)	2.7
Public-private partnerships can enhance the supply of affordable housing	154 (38.7)	132 (33.2)	65 (16.3)	47 (11.8)	398 (100)	3.0
Strengthening land use regulations will encourage more affordable housing developments	43 (10.8)	56 (14.1)	161 (40.5)	138 (34.7)	398 (100)	2.0
Increasing government investment in infrastructure will support housing affordability	121 (30.4)	104 (26.1)	41 (10.3)	132 (33.2)	398 (100)	2.5
Encouraging the use of locally sourced building materials will reduce housing costs	142 (35.7)	169 (42.5)	23 (5.8)	64 (16.1)	398 (100)	3.0
Implementing tax incentives for developers will encourage the construction of affordable homes	99 (24.9)	137 (34.4)	87 (21.9)	75 (18.8)	398 (100)	2.7
Establishing housing cooperatives can help low-income earners secure affordable housing	94 (23.6)	147 (36.9)	56 (14.1)	101 (25.4)	398 (100)	2.6
Enhancing urban planning policies will create more opportunities for affordable housing expansion	58 (14.6)	109 (27.4)	123 (30.9)	108 (27.1)	398 (100)	2.3

Similarly, some disagreement (33.2%) existed concerning the idea of augmented government spending on infrastructure (WM = 2.5). Development of infrastructure may raise land prices as well as housing prices, even though it improves accessibility and liveability [114]. With 42.5% of the respondents concurring, there was uniform acceptance of facilitating the use of locally derived building materials (WM = 3.0). Foreign material dependency can significantly lower building costs and increase affordability, especially as indicated by research [115]. This approach aligns with that report. In addition to lowering the cost of trans-

portation and encouraging local businesses, the use of locally derived materials can allow the economy to survive.

Tax incentives to developers were only weakly supported (WM = 2.7), suggesting that the respondents view them as a viable solution and not a perfect one. Research has shown that tax incentives and rebates can be used to promote affordable housing development; however, such programs need to be well-designed so as not to create unintended effects like market distortions [116]. Housing cooperative establishment also had a moderate WM of 2.6, with 36.9% agreeing. Because they enable people with lower incomes to band together and participate in affordable housing projects, housing cooperatives have experienced positive results in some areas [117].

Overall, the findings suggest that Asaba residents support a combination of market-oriented interventions (public-private partnerships, tax incentives), cost-cutting strategies (local materials), and direct government intervention (subsidies, rent control) to address housing affordability. Land use controls and urban planning enhancements are instances of regulatory reforms, but their effectiveness remains contentious. These findings are consistent with global research that has demonstrated that to overcome the housing affordability crisis, what is required is a mix of public and private initiatives, along with intelligent regulatory reforms [118]-[120].

## 5. Conclusions and Recommendations

The unaffordability of mortgage loans, construction materials, government regulations, and land are all factors that have led to Asaba, Nigeria's severe housing unaffordability. The results are in agreement with past research that has shown that speculation on land and the structures of tenure are factors that increase the price of land, making it hard for low- and middle-income earners to buy property. Excessive reliance on imported materials and inflation are both driving up building costs, and thus, houses are becoming unaffordable. Real estate speculation, regulatory hurdles, and the absence of adequate encouragement from the government are all pinpointed as key constraining factors to affordable housing in the report. The results of the Kruskal-Wallis test support that the issues are experienced equally across different geographical groups, further establishing their widespread influence, though with differences in socio-economic and geographical settings. Shortage of housing, economic difficulties, and migration to less developed areas are some of the socio-economic effects of housing that people experience, thus influencing their standard of living.

The majority of the residents are financially squeezed and have to take out loans or hold second jobs just to make ends meet. In addition to making them more vulnerable to homelessness and having a negative influence on health and well-being, housing affordability contributes to this financial squeeze. Overcrowding and displacement because of prohibitively expensive prices are identified by the spatial analysis, and differences in housing conditions across different areas are also uncovered. Alternatives have been suggested, such as electronic marketing

and simple payment schemes, but they were not shown to be very effective. Public-private partnerships, rent control, and government subsidies are preferred policy programs. Government subsidies, rent control, easier mortgages, and public-private investment are all policy measures that can be used to solve these problems. Future research should evaluate the efficacy of current legislative actions in providing long-term housing solutions in Asaba and other major cities, as well as examine how different perceptions of affordability by population can vary.

The recommendations of this study suggest that the government should tackle the problem of the excessive interest rates and collateral to be paid for a mortgage. Low- and middle-income earners can afford a home if mortgage institutions are made strong, subsidized loans are offered, and microfinance housing schemes are promoted. The second reason why politicians must campaign for the use of locally sourced sustainable materials is due to the skyrocketing cost of construction materials and labour. Use of cheaper options, developing the capacity of construction workers to improve productivity, and tax breaks for local material manufacturers can achieve this. The government must also reduce bureaucratic barriers to land acquisition, establish PPPs for mass housing projects, and incentivize or subsidize affordable housing builders to make housing more affordable. To reduce housing costs overall, regulatory reforms must aim at simplifying approval procedures and reducing unnecessary taxes. Lower housing loans must be made available through microfinance institutions and government programs, since 77.7% of them had taken additional jobs or loans to finance housing. To alleviate financial pressure and increase homeownership rates, more affordable sources of mortgage financing with more flexible payment terms and lower interest rates must be made available.

In addition, subsidies by the government, rent control, and public-private partnership all received massive support by respondents indicating that when applied, it could alleviate the housing provision in the area. As such low-income families ought to have housing subsidies, rent control laws to maintain housing costs constant, and public-private partnerships to enhance affordable houses construction all become priorities of the government. Construction costs can also be cut down by encouraging the use of locally manufactured building materials.

Policies should be set to enhance the quality of housing because 33.9% of the respondents have reported adverse effects on their health due to housing of poor quality. Subsidized housing should be regulated in such a way that it has proper ventilation, sanitation, and crowd control. Housing prices being too high in the central area can be reduced by investing in urban infrastructure like transport and utilities, thereby making the peripheral areas attractive.

### **Conflicts of Interest**

The authors declare no conflicts of interest regarding the publication of this paper.

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