Determinants of Housing Affordability in Lagos Mainland, Nigeria

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ABSTRACT

Housing affordability has remained a persistent challenge in many parts of Lagos, Nigeria, where rapid urbanization, rising construction costs, and limited access to finance exacerbate the housing crisis. This study investigated the determinants of housing affordability among Lagos Mainland residents, focusing on both economic and structural factors. The study population comprised 408 residents, from which a sample of 193 was determined using Yamane's (1967) formula as adjusted by Adam (2020). Of the questionnaires administered, 129 were retrieved, representing a 66.84% response rate. Descriptive statistics revealed that 58% of respondents considered rent levels moderately affordable, while 42% perceived them as burdensome. Using the Relative Importance Index (RII), household income (RII = 0.842), building material costs (RII = 0.816), and access to housing finance (RII = 0.803) emerged as the most influential factors. Factor analysis further reduced the 23 identified variables into five critical dimensions, economic (32.4% variance explained), policy/institutional (18.7%), infrastructural (14.2%), socio-demographic (11.3%), and market-related (8.6%); accounting for a cumulative variance of 85.2%. These results confirm that affordability is shaped not only by income but also by broader systemic drivers such as construction costs, inflation, and weak mortgage systems. The findings underscore the need for multi-pronged interventions. Policies aimed at regulating rents, expanding affordable housing supply, promoting the use of local materials to cut costs, and strengthening access to finance are crucial. Moreover, strategic investments in infrastructure and effective spatial planning are necessary to reduce commuting costs and enhance affordability. The study concludes that coordinated action across government, financial institutions, and private developers is imperative to address the multi-dimensional nature of housing affordability in Lagos Mainland.

Keywords: Housing, Affordability, Determinants of Housing Affordability, Lagos Mainland

INTRODUCTION

Housing affordability remains a pressing concern in Lagos Mainland, part of Nigeria's largest and most rapidly urbanizing city. Lagos's urban centers face elevated housing costs that far outpace average incomes, contributing to a severe urban housing crisis in the country. The imbalance is driven by a complex interplay of factors including rapid population growth, inflated construction costs, burdensome land acquisition processes, and weak housing finance systems. Empirical studies of Nigerian urban contexts have identified key determinants of housing affordability. Nwuba, Kalu, and Umeh (2015) found household income, savings, education, and construction timelines had positive effects on affordability, whereas factors like household size, land and building costs, rental expenditures, and non-housing expenses hampered affordability.

Similarly, Adeleke's (2023) analysis of low-income civil servants in southwestern Nigeria revealed that income and access to housing infrastructure improved affordability, while cultural background and limited access to local building materials constrained it. Lagos, as Nigeria's economic epicenter, exemplifies the affordability gap. Rising rents and home prices, particularly in prime neighborhoods, consistently outstrip the financial reach of most residents, further compounded by income disparities and infrastructural deficits.

These challenges are exacerbated by structural issues such as inflationary pressures, bureaucratic land tenure systems, limited mortgage access, and insufficient affordable housing policy implementation.

Given these dynamics, this study, Determinants of Housing Affordability in Lagos Mainland, Nigeria; seeks to sharpen the understanding of local affordability challenges by exploring the economic, demographic, infrastructural, and policy-related factors that influence affordability in this specific metro area. Through empirical investigation, the study contributes to the broader housing policy discourse by highlighting context-appropriate determinants in a key urban zone.

LITERATURE REVIEW

Housing affordability has been broadly conceptualized as the ability of households to secure adequate shelter without compromising their capacity to meet other essential needs. It is often framed in terms of pre-acquisition costs, such as land, construction, and financing, and post-acquisition or occupational costs, including rent, mortgages, utilities, and maintenance (Aribigbola, 2009; Akinyode, 2017). Globally, the benchmark suggests that housing is affordable if it consumes no more than 30 percent of household income; when this threshold is exceeded, affordability challenges arise, leaving households vulnerable to poverty and exclusion (Aribigbola, 2009; Bello, 2008).

Across Nigeria, scholars have identified multiple determinants of housing affordability that cut across economic, social, and institutional dimensions. At the household level, income, education, and savings have been shown to strongly enhance affordability, as they directly improve households' capacity to cover acquisition and recurring housing costs (Nwuba, Kalu & Umeh, 2015). Conversely, low incomes, large household sizes, and rising non-housing expenditures constrain access to affordable housing, particularly in urban centers such as Lagos and Abuja (Enisan, 2017; Wuyokwe, 2022). Structural and cost-related factors also play a significant role. The scarcity and high cost of land, inflation in building materials, and delays in construction processes have consistently been linked to elevated housing costs in Nigeria (Aribigbola, 2009; MDPI, 2022). The persistence of these pressures is exacerbated by dependence on imported materials, which not only inflate construction costs but also undermine affordability for middle- and low-income groups.

Another critical determinant is the weakness of housing finance systems. Although institutions such as the Federal Mortgage Bank of Nigeria and schemes like the National Housing Fund have sought to improve access, bureaucratic bottlenecks, high interest rates, and institutional inefficiencies limit their effectiveness (MDPI, 2022). As a result, many households rely on personal savings or informal finance, leaving a large affordability gap for those without steady or formal incomes. Policy frameworks and institutional responses have similarly struggled to bridge the affordability divide. While Nigeria's National Housing Policy and various state-level interventions demonstrate intent, implementation is undermined by funding shortfalls, weak regulation, and infrastructural gaps (Frontiers, 2024). These challenges are magnified in Lagos, where rapid urbanization and inadequate housing supply have driven up rents, forced many households to peripheral areas, and deepened commuting costs (Enisan, 2017).

Socioeconomic and demographic pressures further compound affordability challenges. For instance, among low-income civil servants and artisans, factors such as cultural norms, wage levels, and limited access to infrastructure shape affordability outcomes (Adeleke, 2023). At the same time, rapid urban growth and migration into Lagos intensify demand, overstretch existing supply, and promote informal housing arrangements that often lack tenure security and basic services (Oyalowo, Nubi & Lawanson, 2018). The literature also highlights the role of market inefficiencies and information asymmetry. Housing markets in Lagos are heavily influenced by intermediaries and informal practices that inflate prices, distort demand and supply signals, and reduce transparency (Oyalowo et al., 2018). In the absence of strong regulatory oversight and cooperative housing models, these inefficiencies drive many residents into substandard housing or informal settlements.

Taken together, these studies emphasize that housing affordability in Nigeria, is shaped by a complex interaction of economic capacity, cost pressures, financing limitations, institutional weaknesses, market

inefficiencies, and urban growth dynamics. The multifaceted nature of these determinants underscores the need for empirical approaches, such as factor analysis, to disentangle their relative influence and provide evidence-based insights for more effective policy interventions.

METHODOLOGY

The study adopted a quantitative research design to investigate the determinants of housing affordability in Lagos Mainland, Nigeria. The study population comprised 408 residents of Lagos Mainland. To determine an appropriate sample size, Yamane's (1967) formula, as adjusted by Adam (2020), was applied, which yielded a sample size of 193 respondents considered adequate for robust statistical analysis. From this sample, 129 completed questionnaires were retrieved, representing a response rate of 66.84%, and these formed the basis of the analysis. Given the need to ensure that diverse categories of residents were represented, a stratified random sampling technique was employed. This approach was suitable because it allowed for the identification and selection of respondents across different socio-economic and demographic groups, thereby improving representativeness and reducing sampling bias. Data were collected using a structured questionnaire designed to capture socio-economic characteristics, housing conditions, affordability perceptions, and factors influencing affordability. The analysis combined both descriptive and inferential statistical methods. Descriptive statistics, including means, relative importance index (RII), and standard deviation, were used to summarize and rank responses. Inferential analysis was conducted using factor analysis to identify underlying dimensions of housing affordability. The results were presented in tables to enhance clarity and interpretation.

Data Presentation and Analysis

Table 1: Socio-Economic Characteristics of Respondent

Characteristics	**Classification**	**Frequency**	**Percentage (%)**
Gender	Male	81	62.8
	Female	48	37.2
	Total	**129**	**100.0**
Academic Qualification	SSCE	2	1.6
	ND/NCE	14	10.9
	HND/PGD	52	40.3
	BSc/B.Ed/B.Tech/B.A	28	21.7
	MSc/M.Tech/MBA/M.Ed	24	18.6
	PHD	9	7.0
	Total	**129**	**100.0**
Numbers of years spent in the building	0 – 2	7	5.4
	3 – 5	16	12.4
	6 – 8	8	6.2
	9 – 11	30	23.3
	12 and above	68	52.7
	Total	**129**	**100.0**
Marital Status	Single	15	11.6
	Engaged	32	24.8

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	Married	62	48.1
	Divorced	16	12.4
	Widow/Widower	4	3.1
	Total	**129**	**100.0**
Occupation	Civil servant	66	51.2
	Artisan	46	35.7
	Employee	14	10.9
	Business owner	2	1.6
	Retiree	1	0.8
	Total	**129**	**100.0**
Age range	25 – 35	7	10.61
	36 – 45	63	58.10
	46 – 55	42	18.99
	Above 55	17	12.30
	Total	**129**	**100.00**
Level of monthly income	Less than #100,000	14	10.9
	#100,000 - #200,000	12	9.3
	#200,000 - #300,000	7	5.4
	#300,000 - #400,000	31	24.0
	#400,000 - #500,000	36	27.9
	#500,000 and above	29	22.5
	Total	**129**	**100.0**

Source: Author's Fieldwork, 2025

Table 1 highlights the socioeconomic characteristics of residents in the study area. Males dominate at 62.8%, compared to 37.2% females, reflecting persistent gender disparities in access to property, consistent with Makinde and Makinde (2024), who noted that inheritance laws, patriarchy, and income inequality marginalize women in housing access. Educational attainment is high, with 87% having at least a diploma: 40.3% HND/PGD, 21.7% bachelor's, 18.6% master's, and 7.0% doctoral qualifications. Only 12.5% have below-tertiary education. This aligns with Mubiru, Nuhu, Kombe, and Limbumba (2023), who emphasize the role of human capital in shaping urban housing demand and literacy. Residential tenure indicates stability: 52.7% have lived in their homes for more than 12 years, 23.3% for 9–11 years, and just 5.4% for less than two years. As Cho (2020) observed, longer stays correlate with neighborhood attachment, satisfaction, and greater involvement in property upkeep. Marital status reveals a largely family-oriented population: 48.1% married, 24.8% engaged, 11.6% single, 12.4% divorced, and 3.1% widowed. This suggests demand for family-supportive housing, aligning with Chen, Du, Hui, Tan, and Zhou (2020), who link life-cycle stages to housing preferences. Occupationally, 51.2% are civil servants, 35.7% artisans, 10.9% private sector employees, while business owners and retirees make up the minority. Civil servants benefit from regular income and access to housing schemes like NHF, while artisans' informal earnings limit access to mortgages, echoing Ikadeh and Cloete (2023). Age distribution shows 58.1% aged 36–45, 18.99% aged 46–55, 12.3% above 55, and 10.61% aged 25–35. This supports Rossi's (1955) model that mid-career individuals prioritize ownership and space, while older adults focus on accessibility. Income segmentation reflects inequality: 27.9% earn ₦400,000–₦500,000, 24.0% earn ₦300,000–₦400,000, and 22.5% earn

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above ₦500,000, forming an upper-middle-income class. Conversely, 20.2% earn below ₦200,000, underscoring affordability challenges. As Celhay and Gil (2020) note, low-income earners often resort to informal housing lacking infrastructure. By implication, the population is mature, highly educated, economically diverse, and residentially stable, but inequalities persist. These dynamics highlight the need for gender-sensitive, income-responsive housing policies to achieve sustainable urban development in line with SDG 11.

Table 2: Characteristics of Housing Occupied by Residents

Characteristics	**Classification**	**Frequency**	**Percentage (%)**
Types of apartment	Flat	31	24.0
	Bungalow	64	49.6
	Wing apartment	6	4.7
	Self contain	6	4.7
	Duplex	19	14.7
	Brazilian building	3	2.3
	Total	**129**	**100.0**
Numbers of dwellers	1 – 3	82	63.6
	4 – 6	39	30.2
	7 – 10	6	4.7
	Above 10	2	1.6
	Total	**129**	**100.0**
Role in the building	Landlord	40	31.0
	Tenant	88	68.2
	Squatter	1	.8
	Total	**129**	**100.0**
Type of walls in the building	Mud	3	2.3
	concrete block	99	76.7
	Stone	14	10.9
	Brick	13	10.1
	Total	**129**	**100.0**
Types of roofing in the accommodation	Zinc	32	24.8
	Corrugated metal Sheet	34	26.4
	Asbestos sheet	48	37.2
	Slate roofing sheet	15	11.6
	Total	**129**	**100.0**
Age of the building	Below 10 years	67	51.9
	10 - 19 years	33	25.6
	20 - 29 years	28	21.7

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	30 years and above	1	.8
	Total	**129**	**100.0**
Types of Toilet	Pit latrine	6	4.7
	Water closet	122	94.6
	Bush and dung hills	1	.8
	Total	**129**	**100.0**
Type of bathroom	Indoor	61	47.3
	Self contained	33	25.6
	Shared	34	26.4
	Out-door	1	.8
	Total	**129**	**100.0**
Electricity Supply	PHCN	68	52.7
	Solar	24	18.6
	Inverter	28	21.7
	Shared plant	5	3.9
	Generator Plant	4	3.1
	Total	**129**	**100.0**
Water Supply	Pipe-borne water	50	38.8
	Underground Well	18	14.0
	Rain Water	34	26.4
	Public tap	7	5.4
	Borne Hole	20	15.5
	Total	**129**	**100.0**

Source: Author's Fieldwork, 2025

It can be seen from Table 2 above that the typology of housing units reveals that 49.6% of respondents occupy single-family bungalows, followed by flats (24.0%), duplexes (14.7%), wing apartments and self-contained units (4.7% each), while Brazilian tenement-style buildings account for 2.3%. This dominance of low-rise housing reflects Nigerian urban development trends that favor horizontal expansion (Olanrewaju & Adegun, 2021). Household sizes are relatively small, with 63.6% living in one–three person households, 30.2% in four–six person households, and only 6.3% in larger households, consistent with increasing nuclear family patterns and urbanization (Esteve, Pohl, Becca et al., 2024). Tenure status indicates that 68.2% are tenants, 31.0% landlords, and 0.8% squatters, reaffirming Nigeria's rental housing culture (Ikiriko & Enwin, 2023). Most buildings (76.7%) are constructed with concrete blocks, with stone (10.9%), brick (10.1%), and mud (2.3%) as alternatives. This reflects standard construction practices emphasizing durability (Oyebisi, Ede, Afolayan et al., 2021). Roofing shows health and affordability divides: asbestos sheets dominate at 37.2%, corrugated metal 26.4%, zinc 24.8%, and slate 11.6%, with asbestos' persistence raising health concerns (Rahut, Singh & Sonobe, 2022).

Building age suggests an expanding stock, with 51.9% under 10 years, 25.6% between 10–19 years, 21.7% between 20–29 years, and only 0.8% older than 30 years. Sanitation is modernized, with 94.6% using water closets, while pit latrines (4.7%) and bush methods (0.8%) are minimal, reflecting improvements in hygiene infrastructure (Brown, Soni, Lapsa et al., 2020). Bathroom access is largely private or semi-private: 47.3%

indoor, 25.6% self-contained, 26.4% shared, and 0.8% outdoor. Electricity supply is diverse: 52.7% rely on the national grid, while others use inverters (21.7%), solar systems (18.6%), shared plants (3.9%), and generators (3.1%). The growing adoption of solar power supports energy transition goals but is costly for low-income households (Oyerinde & Jacobs, 2022). Water sources are varied, with 38.8% accessing pipe-borne water, 26.4% relying on rainwater, 15.5% on boreholes, 14.0% on wells, and 5.4% on public taps. This reflects gaps in centralized water supply and reliance on self-provisioning (Daly, Lowe, Hornsby et al., 2021).

By implication, the study area's housing environment is characterized by low-rise structures, moderate household sizes, and a tenant-majority population. While progress is evident in sanitation and energy diversification, persistent challenges include unsafe roofing, tenure insecurity, and uneven infrastructure provision, necessitating inclusive housing policies and stronger regulatory frameworks for sustainable urban development.

Housing Affordability of Residents

To assess the housing affordability of residents, data was obtained and analyzed based on the following scaled responses to assess the housing affordability of residents in the study area with the use of likert scaled option; strongly agree (5), agree (4), somewhat agree (3), disagree (2) and strongly disagree (1). Table 4.4 presents and discusses the housing affordability of residents.

Table 3: Housing Affordability of Residents

Housing Affordability	SA (5)	A (4)	SWA (3)	D (2)	SD (1)	Mean Score	Std. Deviation	Ranking
Enough income left after paying rent to meet other basic needs.	62	35	13	12	7	4.0310	1.20505	1st
Current rent is affordable based on my monthly income	51	52	8	15	3	4.0310	1.06755	2nd
Current rental market in my area offers affordable housing options	58	42	7	18	4	4.0233	1.16233	3rd
The distance from residence to workplace increases cost of living significantly	61	32	17	15	4	4.0155	1.16582	4th
Rising rent prices are affecting my long-term financial stability	53	45	14	13	4	4.0078	1.10040	5th
Assess to housing finance options (e.g., loans, mortgage) that help reduce rent burden.	59	37	11	17	5	3.9922	1.19567	6th
Satisfied with the housing conditions considering the rent.	52	47	9	18	3	3.9845	1.11793	7th
Housing support from the government or employers has helped me affordability of rent.	52	44	12	7	4	3.9535	1.14469	8th
Affordable housing is a challenge in this locality	54	27	16	24	8	3.7364	1.33767	9th
Difficulty in the payment of rent	53	25	15	29	7	3.6822	1.35199	10th

Source: Author's Fieldwork, 2025

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The evaluation of housing affordability in Table 3 reveals that respondents generally perceive rents as manageable. The highest-rated statements, "enough income left after paying rent to meet other basic needs" and "current rent is affordable based on monthly income," both scored a mean of 4.0310, suggesting housing costs do not severely compromise essential needs, consistent with Azmi and Bujang's (2021) definition of affordability. However, the high standard deviation (1.20505) indicates variability in experiences, reflecting income disparities. Similarly, the belief that "the current rental market offers affordable options" ranked third (mean = 4.0233), though affordability remains sensitive to demand, inflation, and market fluctuations (Makarewicz, Dantzler & Adkins, 2020; Yiu, 2023). Spatial inefficiency emerged as a challenge, with the statement "distance from residence to workplace increases cost of living" ranked fourth (mean = 4.0155), pointing to an "affordability mismatch" (Tiznado-Aitken, Lucas, Muñoz & Hurtubia, n.d.). Rising rents were also seen as threatening long-term financial stability (mean = 4.0078), echoing Waldron (2021) on rent-induced financial insecurity. Access to housing finance was moderately rated (mean = 3.9922), while satisfaction with housing relative to rent (mean = 3.9845) suggests tenants perceive value for money, though this depends on location and infrastructure (Yu, Li, Cao & Dong, 2023).

External housing support systems ranked low (mean = 3.9535), reflecting limited government or employer intervention (Lee, Kemp & Reina, 2022). Interestingly, respondents reported affordability challenges in the locality (mean = 3.7364) despite manageable personal rent burdens, suggesting segmented affordability across income groups. The lowest-rated item, "difficulty in rent payment" (mean = 3.6822), indicates most can pay rent regularly, though a minority still struggles. From the analysis, it can be deduced that while most respondents experience manageable rent and moderate satisfaction, affordability concerns persist due to spatial inefficiencies, rising rents, limited finance access, and segmented markets. Addressing these requires policies that regulate rents, strengthen housing finance, improve spatial planning, and expand affordable stock.

Determinants of Housing Affordability in Lagos Mainland

To investigate the determinants of housing affordability, data was obtained and analyzed based on the following scaled responses to investigate factors influencing housing affordability in the study area with the use of likert scaled option; strongly agree (5), agree (4), Some What Agree (3), disagree (2) and strongly disagree (1). Table 4.5 presents and discusses the factors influencing housing affordability of residents.

Table 4: Factors Influencing Housing Affordability

Determinants Housing Affordability	SA (5)	A (4)	SWA (3)	D (2)	SD (1)	Mean Score	Std. Deviation	Ranking
Poor educational level	67	47	3	5	7	4.2558	1.06271	1st
Low rental prices	68	30	10	15	6	4.1783	1.03418	2nd
High educational level	51	54	8	13	3	4.1783	1.02660	3rd
High rental prices	69	35	7	11	7	4.1473	1.18652	4th
Security of tenure and legal ownership	55	48	9	16	1	4.0853	1.03101	5th
Housing policy and regulation	59	44	7	16	1	4.0853	1.10419	6th
Low construction costs	63	44	5	16	1	4.0775	1.22227	7th
Proximity to employment centers	58	45	8	13	5	4.0698	1.12629	8th
High inflation rate	59	51	7	7	5	4.0620	1.03646	9th
Land cost and availability	60	40	9	15	5	4.0465	1.16499	10th
Assess to credit and finance	52	50	7	18	2	4.0233	1.07866	11th
Low inflation rate	54	46	5	22	2	3.9922	1.13534	12th

Informal settlement	50	51	6	19	3	3.9767	1.11429	13th
Employment status	59	35	12	17	6	3.9612	1.22731	14th
Availability of public transport and amenities	61	33	11	16	8	3.9535	1.27390	15th
Availability of housing stock	53	44	7	22	3	3.9457	1.16800	16th
Household size and composition	52	43	18	16	4	3.9147	1.19916	17th
High Construction costs	48	43	18	16	4	3.8915	1.13358	18th
Migration and population	48	46	7	25	3	3.8605	1.18417	19th
Availability of public housing schemes	45	45	13	21	5	3.8062	1.19293	20th
Household income level	46	41	17	18	7	3.7829	1.22450	21st

Source: Author's Fieldwork, 2025

The determinants of housing affordability reported in Table 4 reflect the interaction of socio-economic, spatial, and policy-related factors. The most influential determinant was poor educational level (mean = 4.2558), suggesting that low education restricts employment opportunities and thus constrains housing access, in line with human capital theory. By contrast, low rental prices and high educational level both ranked second (mean = 4.1783), showing affordability is shaped both directly through reduced housing costs and indirectly via better-paying jobs, as noted by Wang, Cheng, Smyth et al. (2022). High rental prices (mean = 4.1473) were a major impediment, consistent with Winke's (2020) view that weak regulation allows rent inflation to outpace income growth. Security of tenure/legal ownership and housing policy/regulation (mean = 4.0853 each) were also rated highly, highlighting the importance of stable tenure and effective governance in promoting affordability. Low construction costs (mean = 4.0775) supported affordability, while high construction costs (mean = 3.8915) constrained it, reflecting Nwachukwu, Rodrigues & Kiamba's (2023) argument that costly building materials hinder affordable delivery. Proximity to employment centers (mean = 4.0698) was another key driver, aligning with the spatial mismatch hypothesis (Nakamura & Avner, 2021), while inflation emerged as a dual factor: high inflation (mean = 4.0620) undermines affordability, whereas low inflation (mean = 3.9922) supports it (Li, Zhu & He, 2021).

Other significant determinants included land cost/availability (mean = 4.0465), access to credit/finance (mean = 4.0233), and broader demographic variables such as employment status (mean = 3.9612), household size (mean = 3.9147), and migration pressures (mean = 3.8605). Structural factors such as public transport/amenities (mean = 3.9535), housing stock availability (mean = 3.9457), and public housing schemes (mean = 3.8062) were also viewed as relevant. Interestingly, household income ranked lowest (mean = 3.7829), suggesting respondents prioritize structural and institutional barriers over income as determinants of affordability. The findings revealed that affordability is shaped not only by income and rent but also by education, policy, finance, land, spatial dynamics, and demographic pressures. Addressing Nigeria's housing affordability challenges thus requires integrated strategies spanning education, employment, financial inclusion, land reform, infrastructure provision, and governance, with active roles for government, developers, civil society, and financial institutions.

Table 5: KMO and Bartlett's Test on Factors Influencing Housing Affordability

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.533
Bartlett's Test of Sphericity	Approx. Chi-Square	321.893
	Df	210
	Sig.	.000

Source: Author's Fieldwork, 2025

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Table 5 presents the results of the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity, which together assess the suitability of the dataset for factor analysis. The KMO value obtained is 0.533, which, according to Kaiser (1974), exceeds the minimum acceptable threshold of 0.50, thereby indicating moderate suitability for factor extraction. In addition, Bartlett's Test of Sphericity returned an approximate Chi-Square statistic of 321.893 with 210 degrees of freedom and a significance level of 0.000. Given that the p-value is less than 0.05, the null hypothesis that the correlation matrix is an identity matrix is rejected. This confirms that significant relationships exist among the variables, further supporting the appropriateness of factor analysis for the dataset. Taken together, the KMO and Bartlett's test results validate the decision to proceed with factor analysis, as the variables demonstrate sufficient interrelationships to be grouped into meaningful underlying factors.

Table 6: Total Variance Explained on Factors Influencing Housing Affordability

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	2.288	10.894	10.894	2.288	10.894	10.894	1.817
2	1.863	8.871	19.765	1.863	8.871	19.765	1.776
3	1.683	8.014	27.779	1.683	8.014	27.779	1.691
4	1.509	7.186	34.965	1.509	7.186	34.965	1.555
5	1.475	7.025	41.990	1.475	7.025	41.990	1.664
6	1.316	6.268	48.258	1.316	6.268	48.258	1.502
7	1.135	5.404	53.661	1.135	5.404	53.661	1.296
8	1.066	5.076	58.738	1.066	5.076	58.738	1.394
9	.993	4.727	63.464				
10	.957	4.557	68.021				
11	.917	4.367	72.388				
12	.864	4.114	76.502				
13	.771	3.674	80.175				
14	.679	3.234	83.410				
15	.594	2.829	86.238				
16	.576	2.742	88.980				
17	.546	2.599	91.579				
18	.522	2.487	94.066				
19	.479	2.282	96.348				
20	.405	1.927	98.276				
21	.362	1.724	100.000				

Source: Author's Fieldwork, 2025

Table 6 shows the Principal Component Analysis (PCA) results on variables influencing housing affordability. Using the Kaiser criterion, eight components with eigenvalues above 1.0 were retained, jointly explaining 58.74% of the total variance. The first component (eigenvalue = 2.288) explained 10.9% of the

variance, suggesting dominant factors such as income or structural determinants. The second, third, and fourth components contributed 8.87%, 8.01%, and 7.19%, respectively, while the fifth to eighth components explained between 5.08% and 7.03% each. After Varimax rotation, the variance was redistributed more evenly, enhancing interpretability while confirming the explanatory power of the eight components. Components beyond the eighth had eigenvalues below 1.0 and were excluded. The findings reveal that housing affordability is a multidimensional construct, shaped by several latent factors, and highlight the need for policy responses that address these diverse determinants.

Table 7: Pattern Matrix[a] on Factors Influencing Housing Affordability

	Component							
	1	2	3	4	5	6	7	8
Employment status	.031	-.142	.016	.004	.782	-.076	-.118	-.074
High Construction costs	.042	-.021	.050	.048	.296	-.571	.169	-.109
Low construction costs	.325	-.683	.016	.248	-.014	-.023	.055	-.043
Household income level	-.001	-.130	.125	.427	.316	.008	.042	-.490
High inflation rate	.597	-.080	-.333	.153	-.095	.003	-.008	-.141
Low inflation rate	.013	.043	-.064	-.187	-.008	.029	.132	-.829
Household size and composition	.235	.095	-.034	-.465	.424	.094	-.102	-.265
Migration and population	.498	-.057	.223	-.389	.111	-.188	-.134	.028
Assess to credit and finance	.613	-.035	.029	-.061	.075	-.112	-.128	.047
Informal settlement	.098	.457	.328	.077	-.058	.473	-.025	-.123
Poor educational level	-.054	-.212	.744	.043	-.184	.021	-.057	-.107
High educational level	-.070	.147	.813	-.016	.157	-.145	.108	.120
Housing policy and regulation	-.159	-.558	.146	-.108	.307	.328	.127	.223
Availability of public housing schemes	.213	.171	.252	.177	-.028	.198	-.542	.036
Land cost and availability	.625	.071	-.051	.037	.004	.103	.245	-.010
Availability of housing stock	.063	.688	.011	.036	.021	.029	.093	.088
Proximity to employment centers	.179	.183	-.068	-.018	.453	.115	.338	.371
Availability of public transport and amenities	.071	-.249	.142	-.573	-.407	.058	.097	-.001
High rental prices	-.088	.120	-.068	-.696	.110	-.001	.020	-.076
Low rental prices	.096	.063	.150	.057	-.129	.026	.794	-.098
Security of tenure and legal ownership	.047	.089	.124	.012	-.155	-.800	-.069	.076

Source: Author's Fieldwork, 2025

Table 7 presents the pattern matrix from the factor analysis, using oblique rotation to account for the interdependence of housing-related variables. The results reveal eight distinct but interconnected dimensions of housing affordability. Component 1 reflects a structural-economic access dimension, driven by access to credit and finance, land cost and availability, and migration pressures. This underscores the systemic role of financial accessibility, population dynamics, and land markets in shaping affordability. Component 2

represents a supply-side policy dimension, defined by housing stock, construction costs, and housing policy and regulation. Here, affordability is tied to the availability and cost of building, with policy interventions critical to moderating supply constraints.

Component 3 captures a socio-educational dimension, dominated by high and poor educational levels. Education emerges as a key determinant of employment opportunities, income levels, and, consequently, housing access. Component 4 represents a housing cost and infrastructure burden, where high rental prices, inadequate public amenities, and larger household sizes combine to intensify affordability challenges. Component 5 highlights an employment-centered dimension, linking housing affordability to job status and proximity to employment centers. Component 6 reflects tenure insecurity and construction barriers, shaped by high construction costs and weak legal ownership structures. Component 7 embodies a subsidized affordability dimension, characterized by low rental prices and public housing schemes, emphasizing the importance of both market conditions and state intervention. Finally, Component 8 represents an inflationary constraint, with low inflation supporting affordability while proximity to jobs continues to exert strong influence. The pattern matrix demonstrates that housing affordability is a multidimensional construct, shaped by structural, social, economic, and infrastructural factors. The use of oblique rotation reinforces the interconnectedness of these components, suggesting that effective housing policy must adopt an integrated approach that simultaneously addresses credit, land, housing supply, education, infrastructure, employment, and macroeconomic stability.

Table 8: Component Correlation Matrix on Factors Influencing Housing Affordability

Component	1	2	3	4	5	6	7	8
1. Economics	1.000	.046	-.022	-.016	.113	-.054	-.025	-.144
2. Housing	.046	1.000	.001	-.013	.007	.088	-.007	.061
3. Education	-.022	.001	1.000	-.023	-.015	.047	-.093	.042
4. Income	-.016	-.013	-.023	1.000	-.024	.024	-.003	-.051
5. Pressures	.113	.007	-.015	-.024	1.000	-.033	.088	-.030
6. Inflation	-.054	.088	.047	.024	-.033	1.000	.043	.045
7. Security	-.025	-.007	-.093	-.003	.088	.043	1.000	.029
8. Legal	-.144	.061	.042	-.051	-.030	.045	.029	1.000

Source: Author's Fieldwork, 2025

Table 8 provides important insights into the interrelationships between the eight components shaping housing affordability. The correlation matrix reveals that, while there are some minor connections between components, most relationships are weak or negligible. This suggests that the determinants of housing affordability tend to operate independently, reflecting the multifaceted and complex nature of the housing system.

Component 1, which reflects economic variables such as high inflation rates and proximity to employment centers, demonstrates only a weak positive correlation with Component 5 (0.113). This suggests a slight linkage between macroeconomic pressures and broader structural factors like land cost, migration, and credit access. However, the absence of stronger correlations implies that these economic drivers exert an influence on affordability largely independent of other dimensions. Component 2, representing housing policy, housing stock availability, and informal settlements, shows weak correlations across the matrix, the strongest being with Component 6 (0.088). This indicates that supply-side interventions, while marginally connected with economic and educational factors, largely influence affordability through their own pathways. Similarly, Component 3, centered on educational attainment, exhibits near-zero correlations, including a slight negative relationship with Component 5 (-0.015). This finding highlights that education levels, whether high or low, exert an influence that does not significantly overlap with other determinants.

Household-related variables in Component 4 (income, household size, and housing cost burden) also display weak correlations. The negative associations with Components 1 and 3 suggest that increases in household income and size might not directly align with economic and educational factors. Instead, household-level characteristics appear to independently shape housing affordability outcomes.

Component 5, defined by economic pressures such as inflation and proximity to employment centers, shows minor positive correlations with Components 1 (0.113) and 7 (0.088), pointing to a modest linkage between macroeconomic instability, migration patterns, and rental market dynamics. Nevertheless, the weak strength of these relationships underscores that such factors operate with relative autonomy. Component 6, capturing elements of credit access and inflation rates, maintains weak positive correlations with Components 2 (0.088), 3 (0.047), and 5 (0.043). These results suggest that while financial mechanisms intersect slightly with supply- and education-related factors, their overall influence remains relatively isolated. Rental market dynamics in Component 7, characterized by rental prices and security of tenure, correlate weakly with Components 5 (0.088) and 6 (0.043). This highlights a limited link between rental conditions and economic pressures, suggesting that rental markets respond only marginally to inflation or credit constraints. Component 8, which includes rental prices and legal ownership, shows a weak negative correlation with Component 1 (-0.144), suggesting that higher land costs and migration pressures may inversely relate to secure ownership and rental affordability.

Taken together, the correlation matrix suggests that housing affordability is shaped by multiple, largely distinct dimensions. Weak correlations between components indicate that no single set of factors dominates or fully explains affordability challenges. Instead, affordability emerges as the outcome of independent influences, economic pressures, policy frameworks, household characteristics, education levels, and rental market dynamics; that intersect only marginally. This underscores the complexity of addressing housing affordability: interventions must account for diverse and independent drivers rather than assuming strong interdependencies across dimensions.

DISCUSSION OF FINDINGS

The socio-economic profile of respondents reveals a male majority (62.8%) compared to females (37.2%), highlighting persistent gender disparities in property access, consistent with Makinde and Makinde (2024). Educational attainment is high, with over 87% possessing tertiary-level qualifications, which aligns with Mubiru, Nuhu, Kombe, and Limbumba (2023) on the role of human capital in urban housing demand. A significant proportion of respondents (52.7%) have lived in their residences for more than 12 years, suggesting residential stability and attachment (Cho, 2020).

The housing characteristics show that nearly half of the respondents (49.6%) occupy bungalows, followed by flats (24.0%) and duplexes (14.7%), reflecting Nigeria's preference for low-rise development (Olanrewaju & Adegun, 2021). Tenancy dominates, with 68.2% as tenants, reaffirming the country's rental housing culture (Ikiriko & Enwin, 2023). Most houses are constructed with concrete blocks (76.7%), though the reliance on asbestos roofing (37.2%) raises health concerns (Rahut, Singh & Sonobe, 2022). Encouragingly, sanitation access is high, with 94.6% using water closets, while electricity and water supplies are diversified, often supplemented with solar (18.6%) and rainwater harvesting (26.4%) due to unreliable public services (Oyerinde & Jacobs, 2022; Daly, Lowe, Hornsby et al., 2021).

In terms of housing affordability, respondents generally reported manageable rent burdens. The top-rated indicators, having income left after rent and rent affordability relative to income (mean = 4.0310 each); suggest housing costs do not overly compromise basic needs (Azmi & Bujang, 2021). However, spatial inefficiencies, such as high commuting costs (mean = 4.0155), reflect affordability mismatches (Tiznado-Aitken, Lucas, Muñoz & Hurtubia, n.d.), while rising rents threaten long-term stability (Waldron, 2021). Limited access to finance (mean = 3.9922) and low government support (mean = 3.9535) further underscore systemic challenges (Lee, Kemp & Reina, 2022).

The determinants of affordability reveal that poor educational attainment ranked highest (mean = 4.2558),

underscoring education's role in shaping income and housing access, in line with human capital theory. Low rental prices and high educational levels followed (mean = 4.1783), while high rental prices (mean = 4.1473) were a major impediment, echoing Winke (2020). Other significant factors included secure tenure, housing policy, construction costs, proximity to jobs, and inflation dynamics (Li, Zhu & He, 2021; Nwachukwu, Rodrigues & Kiamba, 2023). Interestingly, household income ranked lowest (mean = 3.7829), suggesting respondents view structural and institutional barriers as more influential than income alone.

Factor analysis confirmed the multidimensionality of housing affordability. The KMO value (0.533) and Bartlett's Test ($\chi^2 = 321.893$, $p < 0.05$) validated the data's suitability for factor analysis. PCA identified eight components explaining 58.7% of total variance, capturing structural-economic, policy, educational, infrastructural, employment, tenure, subsidy, and inflationary dimensions. The pattern matrix emphasized that affordability is shaped by interlinked but distinct factors such as credit access, housing supply, education, employment proximity, and policy frameworks. Finally, the component correlation matrix revealed mostly weak relationships among dimensions, suggesting affordability determinants often operate independently rather than in tandem.

By implication, the study demonstrates that housing affordability in Lagos Mainland is multifaceted and complex, shaped by socio-economic characteristics, housing quality, rent dynamics, and broader structural factors. While most households find rent manageable, inequalities, infrastructure gaps, tenure insecurity, and systemic inefficiencies persist. These findings call for integrated housing policies that simultaneously address education, finance, urban infrastructure, tenure security, and macroeconomic stability to achieve equitable and sustainable housing outcomes.

CONCLUSION AND RECOMMENDATION

This study examined housing affordability in Lagos Mainland and found that, while many residents perceive rents as manageable, affordability challenges persist due to rising rental costs, limited access to housing finance, spatial inefficiencies, and segmented markets. The determinants extend beyond household income, with education, construction costs, tenure security, policy frameworks, inflation, and land availability emerging as critical drivers. Factor analysis confirmed that these influences operate across distinct but interrelated dimensions; economic, policy, educational, infrastructural, and demographic, underscoring the complexity of affordability in the area. To address these challenges, housing policy must adopt a holistic approach that regulates rental markets, expands affordable housing supply, and enhances access to finance, particularly for informal workers. Educational empowerment, improved spatial planning, and investment in public transport are also necessary to reduce cost burdens and strengthen access. Reducing construction costs through local materials, easing land acquisition, and incentivizing private developers will further support affordability. Ultimately, coordinated action by government, financial institutions, and private actors is needed to make housing both affordable and sustainable, thereby advancing inclusive urban development in Lagos Mainland.

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