

## Assessment of Void Periods in Residential Buildings in Minna, Nigeria

Rukaiyat Adeola Ogunbajox<sup>1\*</sup>, Shien Stephen Kuma<sup>2</sup>, Lateef Ademola Lawal<sup>3</sup>

<sup>1,2</sup>Department of Estate Management & Valuation, School of Environmental Technology, Federal University of Technology, Minna, Nigeria

<sup>3</sup>Department of Architecture, School of Architectural Technology, Federal University of Technology, Minna, Nigeria

\*Corresponding author's email: rukky.adeola@futminna.edu.ng

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### Abstract

Void periods significantly impact the profitability of residential investments in Minna, necessitating an in-depth assessment. Re-letting vacant apartments takes a while, and in many cases, newly completed residential buildings experience voids. This study was informed by the need to establish the level of void periods at which residential building types are most vulnerable, as well as locational differences in the study area. Thus, the study aimed to provide an in-depth assessment of void periods in buildings across residential neighbourhoods in Minna, Nigeria. The objectives were to assess the duration of void periods, analyse variations across residential building types, and explore neighbourhood-level differences in the study area. The study adopted a quantitative approach, using a structured questionnaire distributed to Estate Surveyors and Valuers (ESVs), Local Estate Agents (LEAs), and property owners managing 1,500 residential units across 13 neighbourhoods. Levene's test of homogeneity of variance, Welch adjusted analysis of variance, and the Games-Howell post hoc test were used for data analysis. The study found significant variations in void periods among different residential building types and neighbourhoods, with mean void periods ranging from 4.87 to 7.03 months. The study's findings of high void periods underscore the need for stakeholders to address the underlying issues, suggesting that collaborative efforts could mitigate these challenges in the Minna residential property market. Findings from this study serve as a vital indicator of the market conditions, and how it directly affects properties' financial performance. It further offers crucial indicators that influence residential real estate investment, as well as urban planning.

**Keywords:** Assessment, Neighborhoods, Residential buildings, Void periods

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### 1.0 INTRODUCTION

Void periods occur whenever a property is empty, vacant, or untenanted and generates no rental income. Void periods are foreseeable and can have a negative effect on the viability of investment in residential buildings. Wherever void occurrences are high in the property market, the actualisation of investment objectives seems rather unattainable (Oladokun 2011). Despite the increasing demand for accommodation in Minna, many residential properties remain vacant, resulting in rental losses and discouraging potential investors. Over the years, void or vacancy periods in residential buildings has become worrisome and of concern to stakeholders in the real estate market and government.

Residential buildings serve as a source of income for individuals, corporate organisations, and institutional investors alike. They constitute one of the most crucial subsectors within the real estate industry (Ansah, 2012). Although evidence has shown that they are sometimes outperformed by commercial properties in the market (Mfam and Kalu, 2012; Oyewole, 2013), they remain a critical social and economic asset to humanity. Therefore, as the urban population increases, residential buildings become the most sought-after. However, it is a phenomenon in urban real estate that voids naturally occur despite the significant role these buildings play. For instance, as a tenant vacates a building, the period between their move-out and the arrival of another usually results in a void (Dibb, 2021). When this interval between tenancies is not adequately managed, or planned for, it can extend significantly, leading to a loss of income while outgoings increase (Alafat and O'Connor, 2000). Consequently, anticipating and predicting void periods allows a property manager to understand these property management dynamics and deploy appropriate management skills and experience to minimise foreseeable extension in the average void period.

In addition, understanding the dynamics of Minna's urban and rental development is essential for contextualizing vacancy trends in the city. Minna is the capital city of Niger State and is situated in the North-central region of Nigeria. The metropolitan area comprises two local government areas, Bosso and Chanchaga, which converge at the central business district, commonly referred to as the 'Mobil' area. The city's growth extends along the main road arterials that enter the city from Chanchaga through Mobil to Maikunkele, with Maitunbi on the eastern side and Kpakungu on the western side. The city faces infrastructure challenges, particularly concerning the road network, electricity supply, and access to pipe-borne water. These deficiencies exemplify the typical conditions found in most Nigerian cities. With the absence of industries, Minna's local economy thrives on retail, commercial, and agricultural activities. Minna's infrastructural

challenges and rental housing structure (dominated by tenements, 1 and 2-bedroom apartments) may influence tenant turnover and vacancy duration. It is predominantly a rental market, with more sales transactions involving land. The property market enjoys both private (individuals and corporate organisations) and government investments in residential properties, while the property investment climate is currently at a nurturing stage and far from maturity.

The town of Minna in recent years has been inundated with a rising urban population, largely due to influx from Abuja, the Federal Capital Territory, and other adjoining towns and villages. This further stretches the existing demand for residential accommodation, despite the usual inept supply. The irony under this circumstance is the continued prevalence of voids in the Minna residential property market. Tenant replacement is not as immediate as often anticipated, even in some newly developed apartments. Existing studies such as Oladokun (2011), Nubi & Oyalowo (2016), Ezeokoli & Akpokodje (2019) and Gibb & Nygaard (2020) have examined void periods in comparable sub-saharan contexts, but literature focusing on secondary cities like Minna remains scarce. Other studies of Akalemeaku & Egbenta (2013), Udoekanem & Ighalo (2016), and Iroham *et al.* (2021) all relate to vacancies in commercial properties (shops and offices). While the study by Ogunbajo *et al.* (2018) identified the causes of void periods in Minna, very little is known about the level of the void period that exists in the study area. It is in view of the foregoing that this study aims at providing an in-depth assessment of void periods in residential buildings among selected neighbourhoods in Minna. The objectives are to assess the level of void periods, analyse variations across residential building types, and explore neighbourhood-level differences in the study area. The study is justified by the need for real estate investors to have a clearer understanding of the levels of voids in the property market. By quantifying the duration and distribution of void periods across residential property types and locations, this study will aid real estate investors, valuers and policy makers in making data-driven decisions on rental property management and urban housing policies.

## ■ 2.0 LITERATURE REVIEW

### 2.1 Conceptual Dimensions of Voids

The concept of void has physical, economic, and legal connotations. Physically, void means vacant, empty, unoccupied, bare, or deserted space. When a building is without an occupant, either an owner-occupier or a tenant, it remains void. Physical void also exists even when a tenant occupies a property with excess space remaining unused. For instance, if a tenant leases a 3-bedroom apartment while living alone, there will be underutilized spaces within the apartment. In commercial buildings, a tenant may lease a large space in terms of square metres but only occupy, say, 60% of it, resulting in a 40% unutilized space (Akalemeaku and Egbenta, 2013). All these are instances of the occurrence of physical void. The economic perspective of void, on the other hand, relates to situations where a rental building is not generating income due to physical void. In some cases, a tenant may occupy the space but default on rent payments, resulting in a loss of income. From a legal standpoint, voids may emerge due to tenancy agreements rendered unenforceable by breaches in lease terms, raising landlord – tenant conflicts that culminate in economic and physical voids. The concept of void often intertwines with practical scenarios. For example, if a property owner fails to meet any conditions of a lease, it renders the lease legally void. In cases involving repairs, such issues might discourage tenants from fulfilling their rental obligations, resulting in an economic void due to income loss. Ultimately, this situation could lead to eviction or the tenant moving out, leaving the building physically void.

### 2.2 Global and Local evidence on void periods

The occurrence of a void during the transition of one tenancy to another, typically involving two different tenants, may not raise investor apprehension, but the duration of the void certainly will. This significantly underscores the need for available data on the general level of void within the property market to inform investors and managers' strategies towards its management. A survey conducted in the United Kingdom by Statista (2021) of 200 sampled property owners on void from 2013 to 2019 suggests that a typical residential property experiences an average void period of about 3 weeks per annum. However, the findings also indicate that this will vary by region, with London and city centre locations typically having lower void periods. In Nigeria, rent is paid annually, of which the 3-week void period per annum represents less than one month; hence, this outcome indicates a relatively lower void period compared to that found in some Nigerian property markets. For instance, Oladokun (2011) conducted a study on property voids and ethnic differentials in the Okota residential property submarket in Lagos State. The focus was to investigate the level of void periods and examine the causes. The study found that the average level of void periods is between 4 and 6 months (17 weeks – 26 weeks). This is reasonably high, even with variations in the tenancy arrangements.

The levels of void periods in the commercial property submarket market, just like those in the residential property type, also indicate a similar high trend. In the commercial property submarket of Enugu, Akalemeaku and Egbenta (2013) observed a high void period spanning the central business district and adjacent areas. The outcome of the study revealed an average void period spanning between 6 months and 4 years, with most of the properties investigated experiencing between 70% and 100% void spaces. Contrariwise, for the Grade-A office buildings in the Lagos commercial property submarket, Irohan *et al.* (2021) observed that the properties exhibited a minimal average void space of 12%, but with certain building vacancies having persisted for an extended duration of up to 9 months. Thus, despite property type differences, the average void periods reported align with those of previous studies by Akalemeaku and Egbenta (2013) and Oladokun (2011). While UK residential voids are short due to monthly rent payment systems and active property management strategies, Nigerian voids tend to be longer due to annual rent payment structures, weak regulation, and sociocultural dynamics. Although, there is no available global standard to measure levels of void (i.e., low or high), for a rental property to remain without income flow for such a period is potentially an investment risk (loss of revenue). In some locations, security services are usually engaged to avoid cases of illegal occupation or acts of vandalism, thereby adding to the cost of maintenance.

### 2.3 Factors Influencing void periods

Several factors contribute to voids in the property market, as identified in existing literature. According to Remoy (2010), social amenities play a role in encouraging residential users within locations to relocate from one property to another, leaving some properties completely void. The study suggests that road infrastructure, parking space, and the property's adaptability to changes also affect void rates in residential properties. However, the causes of voids and the level of effect may vary across different locations. Thus, while social amenities are considered similar in their impacts, specific locations may exhibit variations. Killilea and Ward (2013) explored reasons for property voids and found that physical condition, social and cultural factors, economic dynamics driven by demand and supply, patterns of neighbourhood change, and residents' preferences were responsible for voids. In this case, culture, consumer preferences, and neighbourhood changes are recognised here as distinct factors from those of Remoy (2010). Oladokun (2011), on the other hand, identified causes of void as ethnic differential (segregation), followed by socio-economic factors (tenants' occupation and income), marital status and family composition, level of education, and religion. Nigeria is a multi-ethnic and tribal nation, and this criterion is in some instances used to segregate prospective tenants in preference to void in some property markets. Hence, the Okota property market has indicated ethnic differences and religion among the demographic structure of users as void factors. Furthermore, fictitious rents, building finishes, and labour migration also cause voids (Akalemeaku and Egbenta, 2013).

Furthermore, Hendershott Lizieri and Matyski (2014) posited that eviction of tenants, abandonment of property, locations of certain residential buildings, and transfers of sitting tenants could also result in vacancies. In Minna, for instance, Ogunbajo et al. (2018) consider externalities such as proximity to certain facilities, like health care, shopping centres, and major roads, as well as infrastructure such as electricity, as determinants of void periods. In Nigeria, generally, the void in residential properties have been attributed mainly to the economy and mostly fictitious rent levels that are not in congruence with the local market economy. Moreover, unilateral rent reviews by the property owners without corresponding improvements on the condition of the property create apathy among tenants, usually leading to increased rent defaults (Kemiki et al., 2018) and possible evictions. The impact of some of these factors prolongs void periods in certain locations.

### 2.4 Gaps in the Literature

While existing literature provides insight into void patterns in major cities like Lagos and Enugu, there is limited empirical understanding of void durations, typological variations, and spatial disparities within secondary cities such as Minna. This study addresses this gap by examining void periods across different residential property types and neighbourhoods in Minna, Nigeria.

## 3.0 METHODOLOGY

A quantitative research design was adopted for this study with a survey approach, where a well-structured questionnaire was developed for data collection. The questionnaire elicits specific information on the residential units in line with the objectives of the study. These were the sizes of the accommodation in terms of the number of bedrooms; when the last tenant vacated the building; how long the building had remained vacant; and why. Prior to full deployment, the questionnaire was pre-tested on 30 respondents across three neighbourhoods to assess clarity and reliability. Necessary adjustments were made to enhance comprehensibility. Clustered random sampling (CRS) was used to select 13 residential neighbourhoods across Minna. Within these clusters, purposive sampling was employed to identify residential units that experienced void between 2012 and 2022. This ensured a comprehensive citywide sample from nearly all residential submarkets. Estate Surveyors and Valuers (ESVs) and Local Estate Agents (LEAs) were contacted in their offices to assist in identifying eligible residential buildings for the study. Landlords who directly manage their properties were also contacted. Inclusion criteria required that the respondents (landlords, ESVs or LEAs) had first-hand knowledge of tenant history and void periods for the selected properties. Buildings with incomplete or unverifiable tenancy records were excluded. Data on void periods was gathered from the ESVs, LEAs, and landlords over a four-week survey period (06-11-2023 to 07-12-2023), facilitated by four research assistants. A total of 1500 questionnaires were distributed across the sampled residential units which spread across 13 neighbourhoods. 1129 questionnaires were filled and returned, accounting for about 75% of the response rate from the survey. Information relating to specific periods when some buildings became vacant could not be provided, especially from some landlords and LEAs who do not have accurate or, in some cases, no available records due to their literacy levels. Due to incomplete records from some landlords, and agents, void period data may be affected by recall bias. To mitigate this, data were cross-checked across multiple respondents where possible. Verbal informed consent was obtained from all participants, and responses were anonymised. The residential property types sampled were tenements, 1 bedroom and 2-bedroom apartments due to their predominance in the rental market, as well as 3-bedroom bungalows.

Data obtained on the void periods were collated for each of the sampled residential units in all the neighbourhoods, and mean void periods (MVPs) were computed. Levene's test was used to assess the homogeneity of variances across building types. Due to unequal variances, Welch adjusted ANOVA was applied to test for differences in mean void periods across groups. Games-Howell Post Hoc tests, which are suitable for unequal sample sizes and variances, were used for pairwise comparisons between neighbourhoods.

## 4.0 RESULTS AND DISCUSSION

The mean void periods (in months) for all the sampled residential building types in each of the neighbourhoods is presented in the Table 1.

**Table 1** Level of MVPs (in months) for different house types across neighbourhoods

Neighbourhood	Tenement	One bedroom apartment	Two bedroom bungalow	Three bedroom bungalow
Barkin Saleh	3.76	6.61	6.67	13.22
Maikunkele	4.61	4.97	7.21	8.33
Chanchaga	6.49	5.41	5.73	8.10
Kpakungu	3.66	6.33	5.46	8.25
Maitumbi	5.72	7.12	6.08	6.36
Gbaganu	3.42	5.06	4.08	4.00
Nyikangbe	2.33	5.67	3.94	7.67
Shango	6.86	6.85	5.67	6.25
Sauka Kahuta	4.89	5.24	7.33	11.00
Tayi Village	7.63	3.91	5.39	3.79
Tudun Fulani	3.95	5.33	3.00	5.50
Fadikpe	4.22	3.25	3.67	3.86
Gidan Mangoro	7.91	5.86	3.40	10.00
All Neighbourhoods	4.87	5.47	5.13	7.03

(Source: Author's own work, 2025)

The values in Table 1 show that, at an aggregate level, 3-bedroom houses have the highest MVP of 7.03 months, followed by 1-bedroom apartments with an MVP of 5.47 months. This is in contrast with tenement buildings, which have the lowest MVP of 4.87 months, and 2-bedroom bungalows, which have an MVP of 5.13 months. With the rising cost of rental housing, 3 bedrooms are becoming practically unaffordable to a substantial number of prospective tenants; hence, this accommodation type is vulnerable to higher void periods comparatively. At a disaggregated level, the 3-bedroom bungalows still show significantly higher MVPs among the 13 neighbourhoods, with Barkin Saleh, Sauka Kahuta, and Gidan Mangoro indicating MVPs of 10 months and above. Tayi Village and Fadikpe residential neighbourhoods are the few exceptions, with lower MVPs of 3.79 and 3.89 for 3-bedroom houses. These show areas with less influence from externalities and largely inhabited by the local tribes with relatively affordable housing rent. Families also with large households prefer them. While for tenement buildings, Tayi Village, Gidan Mangoro, and Shango have higher MVPs of 7.63 months, 7.19 months, and 6.86 months, respectively. This is incongruent with Nyikangbe, Gbaganu, and Kpakungu, which have lower MVPs of 2.33 months, 3.42 months, and 3.66 months, respectively.

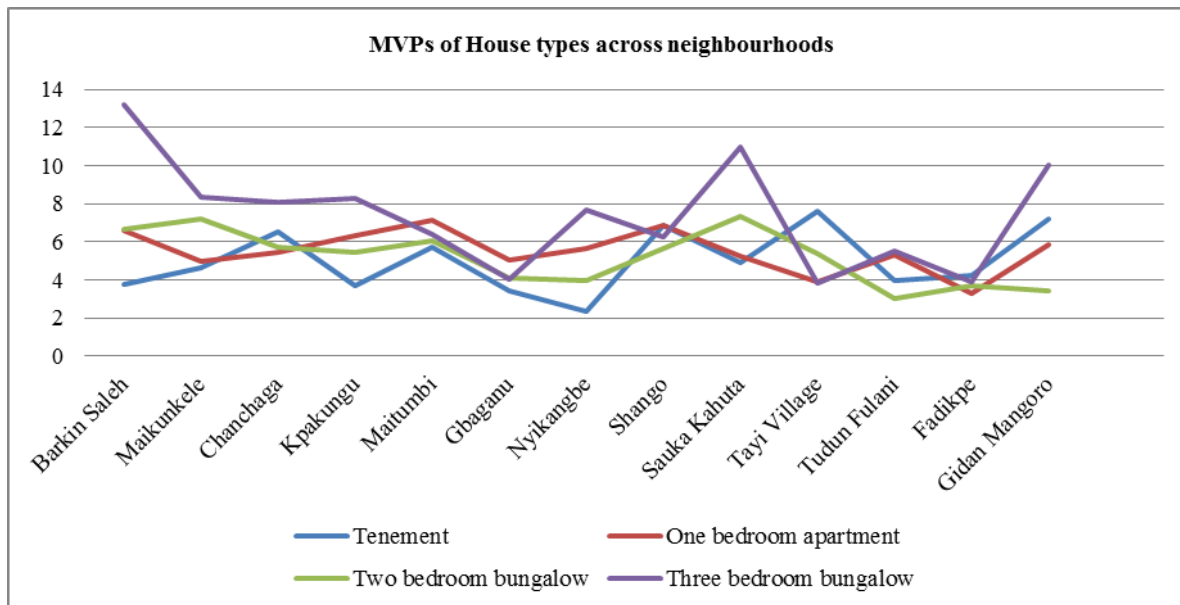


Figure 1 MVPs of House types across neighbourhoods  
(Source: Author's own work, 2025)

One-bedroom apartments recorded higher MVPs in Maitumbi (7.12 months) and Shango (6.85 months), while lower MVPs were recorded in Fadikpe (3.25 months) and Tayi village (3.91 months). The result for two-bedroom houses indicates that Sauka Kahuta has the highest MVP of 7.33 months, while Tudun Fulani recorded the lowest with a 3-month MVP.

#### 4.1 Tests for Differences in MVPs of Residential Buildings across the Neighbourhoods

The data were subjected to further analysis in order to test for significant differences in the void periods of each residential building type across the neighbourhoods. To achieve this with the nature of the data prepared, the analysis of variance technique was used, and a starting point for the analysis was Levene's test of homogeneity of variances. This is because the homogeneity of variance is a stringent assumption underlying the use of the one-way ANOVA.

**Table 2** Levene test for homogeneity of variances of void periods

House Type	Levene Statistic	df1	df2	Sig.
Tenement Buildings	6.071	12	460	.000
One bedroom apartment	4.312	12	341	.000
Two-bedroom bungalows	2.054	12	150	.023
Three-bedroom bungalows	4.377	12	131	.000

(Source: Author's own work, 2025)

Table 2 presents a Levene statistic value of 6.071 for tenement buildings, 4.312 for 1-bedroom apartments, 2.054 for 2-bedroom bungalows, and 4.377 for 3-bedroom bungalows. The corresponding p-values in all four cases are less than the alpha level, i.e.,  $p(0.000) < \alpha(0.05)$ , thus indicating that the variances (of the void period for the four house types) are not homogenous. In other words, the homogeneity of variances assumption had been violated.

Because homogeneity of variances was violated (as shown by Levene's test), the Welch ANOVA, which adjusts for unequal variances, was used. The result of the Welch ANOVA is presented in Table 3.

**Table 3** Welch test for equality of means for void periods

House Type	Welch Statistic <sup>a</sup>	df1	df2	Sig.
Tenement buildings	28.482	12	140.358	.000
One bedroom apartment	8.555	12	94.315	.000
Two-bedroom bungalow	9.223	12	45.57	.000
Three-bedroom bungalow	23.133	12	34.848	.000

a. Asymptotically  $F$  distributed.

(Source: Author's own work, 2025)

The result in Table 3 shows a Welch-adjusted  $F$  ratio of 28.482 for tenement buildings and 8.555 for 1-bedroom apartments. Both accommodations had corresponding p-values of 0.000., while 2-bedroom bungalows and 3-bedroom bungalows recorded Welch-adjusted  $F$  ratios of 9.223 and 23.133, respectively. These two residential building types also had p-values of 0.000. The p-values did not exceed the significance level ( $p < 0.05$ ), thus implying that the adjusted  $F$  ratios were significant at 0.05 alpha levels. These, therefore, translate to a significant difference in the MVPs of tenement buildings, 1-bedroom apartments, 2-bedroom apartments, and 3-bedroom bungalows across neighbourhoods in the study area.

To identify where the significant differences lie, the Games Howell post hoc test, which is robust to unequal variances and sample sizes was applied. This is in line with Barnes and Lewin's (2005) assertion that ANOVA can only tell whether groups in a sample differ significantly, but it cannot specify which groups differ. Neighbourhoods whose mean difference had corresponding p-values that were less than 0.05 (implying significant differences) are extracted from the overall test results and presented in Tables 4–7.

**Table 4** Neighbourhoods that differ significantly in the void period of tenement buildings

(I) Neighbourhood		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Barkin saleh	Chanchaga	-2.721	.599	.001	-4.77	-.67
	Maitumbi	-1.956	.518	.016	-3.72	-.19
	Tayi Village	-3.860	.602	.000	-5.98	-1.74
Chanchaga	Gidan Mangoro	-3.423	.482	.000	-5.07	-1.78
	Kpakungu	2.825	.573	.000	.86	4.79
	Gbeganu	3.069	.748	.018	.34	5.80
Kpakungu	Fadikpe	2.269	.638	.035	.08	4.46
	Maitumbi	-2.060	.487	.003	-3.71	-.40
	Tayi Village	-3.964	.576	.000	-6.01	-1.92
Gbeganu	Gidan Mangoro	-3.526	.449	.000	-5.06	-2.00
	Tayi Village	-4.208	.750	.001	-6.98	-1.44
	Gidan Mangoro	-3.771	.658	.001	-6.30	-1.24
Nyikangbe	Maikunkele	-2.274	.520	.006	-4.12	-.43

Shango	Chanchaga	-4.152	.494	.000	-5.88	-2.43
	Maitumbi	-3.388	.391	.000	-4.74	-2.04
	Shango	-4.528	.370	.000	-5.81	-3.25
	Sauka Kahuta	-2.553	.404	.000	-3.95	-1.16
	Tayi Village	-5.292	.497	.000	-7.14	-3.44
	Tudun Fulani	-1.616	.424	.016	-3.06	-.17
	Fadikpe	-1.883	.493	.020	-3.60	-.17
	Gidan Mangoro	-4.854	.342	.000	-6.04	-3.66
	Barkin Saleh	3.096	.502	.000	1.38	4.81
	Maikunkele	2.254	.573	.015	.26	4.25
	Kpakungu	3.200	.470	.000	1.60	4.80
	Gbeganu	3.444	.673	.004	.89	6.00
	Nyikangbe	4.528	.370	.000	3.25	5.81
	Sauka Kahuta	1.975	.470	.004	.37	3.58
Tayi Village	Tudun Fulani	2.912	.487	.000	1.26	4.57
	Fadikpe	2.645	.548	.001	.76	4.53
	Barkin Saleh	3.860	.602	.000	1.74	5.98
	Maikunkele	3.018	.662	.003	.69	5.35
	Kpakungu	3.964	.576	.000	1.92	6.01
	Gbeganu	4.208	.750	.001	1.44	6.98
	Nyikangbe	5.292	.497	.000	3.44	7.14
	Sauka Kahuta	2.739	.575	.002	.69	4.79
	Tudun Fulani	3.676	.589	.000	1.59	5.76
	Fadikpe	3.409	.640	.000	1.16	5.66
Tudun Fulani	Chanchaga	-2.537	.586	.003	-4.54	-.53
	Maitumbi	-1.772	.503	.035	-3.48	-.06
	Gidan Mangoro	-3.238	.466	.000	-4.83	-1.65
Gidan Mangoro	Maikunkele	2.580	.555	.002	.64	4.52
	Sauka Kahuta	2.301	.449	.000	.76	3.84
	Fadikpe	2.971	.530	.000	1.14	4.80

(Source: Author's own work, 2025)

The outcome of the Games Howell post hoc test presented in Table 4 shows that the MVPs for tenement buildings in Barkin Saleh differ significantly from those of Chanchaga, Maitumbi, Tayi Village, and Gidan Mangoro. Also, the MVPs of tenement buildings in Chanchaga differ significantly from those of Kpakungu, Gbeganu, and Fadikpe, among others. These are evidenced by the p-values in the 5<sup>th</sup> column of the table, which are less than the alpha level (0.05). Meanwhile, the result of the post hoc test in Table 5 below shows that the MVPS for 1-bedroom apartments in Tayi Village differ significantly from those of Barkin Saleh, Maitumbi, Nyikangbe, Shango, and Gidan Mangoro. On the other hand, Fadikpe differs significantly in MVPs of 1-bedroom apartments from all the other neighbourhoods except for Tudun Fulani, Sauka Kahuta, and Tayi Village.

**Table 5** Neighbourhoods that differ significantly in void periods of 1-bedroom apartments

(I) Neighbourhood		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Tayi village	Barkin Saleh	-2.702	.541	.001	-4.65	-.75
	Maitumbi	-3.209	.660	.003	-5.64	-.78
	Nyikangbe	-1.758	.425	.006	-3.22	-.30
	Shango	-2.939	.738	.014	-5.53	-.35
Fadikpe	Gidan Mangoro	-1.955	.501	.013	-3.67	-.24
	Barkin Saleh	-3.361	.528	.000	-5.29	-1.43
	Maikunkele	-1.721	.391	.005	-3.10	-.34
	Chanchaga	-2.156	.494	.005	-3.89	-.42
	Kpakungu	-3.083	.651	.021	-5.77	-.40
	Maitumbi	-3.868	.650	.000	-6.28	-1.46
	Gbeganu	-1.806	.443	.009	-3.34	-.27
	Nyikangbe	-2.417	.408	.000	-3.85	-.99
	Shango	-3.598	.728	.001	-6.17	-1.03
	Gidan Mangoro	-2.614	.487	.000	-4.30	-.92

(Source: Author's own work, 2025)

Further, the results presented in Table 6 below suggests that the MVPs for 2-bedroom houses in Barkin Saleh and Fadikpe differed significantly from those of 3 other neighbourhoods, while MVPs Tudun Fulani differed significantly from those in eight of the sampled neighbourhoods.

**Table 6** Neighbourhoods that differ significantly in the MVPs of 2-bedroom bungalows

(I) Neighbourhood		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Nyikangbe	Maikunkele	-3.270	.868	.045	-6.49	-.04
	Maitumbi	-2.132	.583	.044	-4.23	-.03
Tudun Fulani	Sauka Kahuta	-3.389	.790	.025	-6.47	-.31
	Barkin Saleh	-3.667	.757	.023	-6.89	-.44
	Maikunkele	-4.214	.787	.004	-7.27	-1.16
	Chanchaga	-2.727	.597	.019	-5.10	-.35
	Kpakungu	-2.462	.590	.029	-4.74	-.18
	Maitumbi	-3.077	.453	.000	-4.79	-1.37
Fadikpe	Sauka Kahuta	-4.333	.700	.004	-7.30	-1.37
	Tayi village	-2.391	.441	.000	-3.97	-.81
	Maikunkele	-3.548	.851	.021	-6.73	-.36
	Maitumbi	-2.410	.557	.009	-4.42	-.40
	Sauka Kahuta	-3.667	.771	.013	-6.71	-.62

(Source: Author's own work, 2025)

For the 3-bedroom residential buildings, an extracted result from the Games Howell post hoc test reveals that the neighbourhoods differ significantly in their MVPs in the study area, as indicated in Table 7.

**Table 7** Neighbourhoods with differed MVPs for 3-bedroom bungalows

(I) Neighbourhood		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Barkin saleh	Maikunkele	4.889	.97	.010	0.99	8.79
	Chanchaga	5.122	1.01	.008	1.13	9.12
	Kpakungu	4.972	1.08	.015	0.75	9.19
	Maitumbi	6.865	.99	.000	2.93	10.80
	Nyikangbe	5.556	1.39	.041	0.16	10.95
	Shango	6.972	1.12	.000	2.69	11.25
	Tayi Village	9.437	.895	.000	5.61	13.26
	Tudun Fulani	7.722	1.09	.000	3.38	12.07
Gbeganu	Fadikpe	9.365	.906	.000	5.54	13.19
	Barkin Saleh	-9.222	1.05	.000	-13.32	-5.13
	Maikunkele	-4.333	.736	.001	-7.14	-1.53
	Chanchaga	-4.100	.795	.003	-7.11	-1.09
	Kpakungu	-4.250	.880	.009	-7.66	-.84
Sauka Kahuta	Sauka Kahuta	-7.000	.898	.000	-10.29	-3.71
	Maitumbi	4.643	.829	.000	1.63	7.65
	Shango	4.750	.983	.003	1.16	8.34
Tayi village	Tudun Fulani	5.500	.949	.002	1.82	9.18
	Maikunkele	-4.548	.494	.000	-6.42	-2.67
	Chanchaga	-4.314	.578	.000	-6.62	-2.01
	Kpakungu	-4.464	.690	.004	-7.44	-1.49
Fadikpe	Maitumbi	-2.571	.543	.007	-4.61	-.53
	Sauka Kahuta	-7.214	.712	.000	-9.90	-4.53
	Maikunkele	-4.476	.514	.000	-6.40	-2.56
	Chanchaga	-4.243	.595	.000	-6.57	-1.91
	Kpakungu	-4.393	.705	.004	-7.37	-1.41
	Maitumbi	-2.500	.561	.010	-4.58	-.42
	Sauka Kahuta	-7.143	.726	.000	-9.85	-4.43

(Source: Author's own work, 2025)

The 3rd column of Table 7 shows mean differences (between groups of neighbourhoods) that are significant at the 0.05 level. The analysis implies that these groups of neighbourhoods differed significantly in the MVPs for 3-bedroom bungalows in Minna.

Significant MVP differences were found between Barkin Saleh and at least four other neighbourhoods in all house types, notably with Gidan Mangoro and Tayi Village, indicating locational influence. Results of analysis revealed an aggregate void period of 4.87 months for tenement buildings, 5.47 months for 1-bedroom apartments, 5.13 months for 2-bedroom bungalows, and 7.03 months for 3-bedroom bungalows across all the sampled neighbourhoods (see Table 1). The trend exhibited by the result has indicated that the bigger the size of accommodation, the higher the MVP, which can essentially be explained by the poor performance of the local economy and

the high housing rent in the market (Kemiki *et al.*, 2018). Though on comparison, despite the significant differences in the MVPs of 2 bedrooms in Barkin Saleh and Tudun Fulani from other neighbourhoods (see Table 6), on aggregate, they have a lower MVPs than the 1-bedroom houses especially in 6 of the neighbourhoods studied. This follows that due to the predominance of 1-bedroom in the market as well as an abridged accommodation for those in tenement and 2-bedroom houses; they tend to command higher rents in some neighbourhoods. Results further showed that the MVPs of tenement buildings in six neighbourhoods; Barkin Saleh, Maikunkele, Kpakungu, Gbaganu, Nyikangbe, Tudun Fulani and Fadikpe, were lower than the aggregate across the study area. This suggests a relatively higher occupancy turnover or affordability of tenement buildings in those areas. It further suggests an influence of certain externalities like proximity to road arterials and shopping centres especially in the case of Barkin Saleh, Kpakungu and Gbaganu. Further, the MVPs for 2- and 3-bedroom bungalows in 5 of the sampled neighbourhoods were lower than the aggregate mean for these categories of houses across all the neighbourhoods. However, the MVPs for each of the sampled house types were found to differ significantly across neighbourhoods in the study area. The least void periods were recorded in Nyikangbe, Fadikpe, Tudun Fulani, and Tayi Village for tenement buildings, 1-bedroom apartments, 2- and 3-bedroom houses respectively. This suggests among others, a high demand for the respective house types and the rental values of accommodations in the neighbourhoods are within the average affordability level compared with others.

Variations in the void periods of similar residential dwelling units across neighbourhoods can be attributed to several factors. Firstly, population growth resulting from the location of prominent features within the areas plays a significant role. Secondly, there is a general high demand for residential accommodation due to personal tastes and preferences. This demand is particularly evident in neighbourhoods such as Gbaganu, Nyikangbe, and Sauka Kahuta. Thirdly, affordable rents contribute to the variations in void periods. Lastly, the availability of ancillary facilities, as observed in Tayi village and Fadikpe, among others, also impacts void periods. An earlier study conducted by Ogunbajo *et al.* (2018) in the study area revealed that proximity to certain externalities and other favourable locational attributes, along with active marketing of housing units in specific neighbourhoods, could explain the variations in the MVPs across the sampled neighbourhoods.

#### 4.2 Summary of Findings

MVPV increases with property size; 3-bedroom units average 7.03 months, while tenements average 4.87 months; Neighbourhoods such as Gidan mangoro and Tayi village exhibited the most and least voids respectively; significant differences in MVPs were found across all house types and neighbourhoods ( $p < 0.05$ ); Externalities such as proximity to amenities, affordability and demographic factors influenced MVP patterns.

#### 5.0 CONCLUSION

The duration of void periods may vary across different property markets and property types because of variations in market conditions. This has been demonstrated by the current study findings, which clearly showed significant MVP differences across neighbourhoods for the sampled house types. This study presented an aggregate void period of 4.87 months for tenement buildings, 5.47 months for 1-bedroom apartments, 5.13 months for 2-bedroom bungalows, and 7.03 months for 3-bedroom bungalows across all the sampled neighbourhoods. These MVPs were also observed to increase with the size of various accommodation. The study area presented relatively high MVPs in the residential property market. This could negatively affect real estate investors, as they could experience loss of income flows. It could also further escalate the consequences if the housing units in question were either developed or purchased through mortgage schemes that required monthly repayment. These findings align with the observations from the Okota residential property market, as reported by Oladokun (2011). Furthermore, the variance in MVPs among similar residential accommodations highlights the significant differentiation that exists even among neighbourhoods.

The study recommends that, in a bid to minimize voids in residential buildings, managers (ESVs, LEAs and Landlords) should aggressively market properties towards the end of an existing tenancy, before the current tenant leaves. In the same vein, rents should be set at market rates to attract tenants faster. Furthermore, the concerned authorities should ensure quick upgrades and good maintenance of housing units and amenities within neighbourhoods. These could enhance the overall appeal and could further attract a good number of prospective residents. External factors, such as well-designed road networks, efficient waste management facilities, and robust security, are known to draw families to such locations. Consequently, this would reduce the duration of voids, while also ensuring timely and profitable returns on investments.

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