

## International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

# Influence of Multi-tenancy Housing Challenges on Occupants' Satisfaction in Abuja, Nigeria.

Williams Amanyi Idakwoji a and Henry Emusa b\*

<sup>a &b</sup> Department of Architecture, Faculty of Architecture, Bingham University Karu, Nigeria.

#### ABSTRACT

The research aims to identify the diverse challenges associated with cohabitation, shared facilities and management practices in multi-tenancy housing in Abuja, Nigeria, and to offer a holistic understanding of these dynamics. This research became imperative especially due to the paucity of information on occupants' satisfaction of multi-tenancy housing in Nigeria. Existing studies mainly focus on the physical environment. Employing a survey-based cross-sectional design, data was collected through structured questionnaires administered across 10 multi-tenancy apartments across Abuja city, focusing on occupants' perceptions of the associated challenges. These challenges as identified in this research are categorized into four key components: Environmental Hygiene; Shared facility; Environmental Safety; and Privacy, which served as independent variables. Inferential analysis, including correlation analysis and multiple regression analysis, was conducted to assess the relationship between these challenges and occupants' satisfaction. Preliminary findings revealed a positive correlation between the identified challenges and occupants' satisfaction. Furthermore, the results of multiple regression analysis reveal a significant positive relationship, reinforcing the importance of addressing these challenges for enhanced occupants' satisfaction. This research highlights the critical need to improve the overall quality of rental dwellings in Abuja, and the role of effective residential building design and property management in improving occupants' quality of life and fostering sustainable urban development. The findings have implications for policymaking, suggesting the need to refine multi-tenancy housing development and management practices, and empowering housing estate investors/developers and administrators/managers to meet the evolving needs and expectations and comfort of housing occupants. Overall, this research contributes to a deeper understanding of the dynamics in multi-tenancy housing and provides insights

Keywords: Abuja; Multi-Tenancy; Rented Apartments; Property Management; Occupants' Satisfaction

### 1. INTRODUCTION

Housing, universally acknowledged as a fundamental necessity, entails the provision of a safe, functional, and decent living environment that reflects individuals' socio-economic, cultural aspirations, and community preferences. While commonly defined as buildings or dwellings, it encompasses the essential amenities and infrastructural facilities necessary for comfortable living within the built environment. Despite its critical role in sustaining human existence, housing remains a significant challenge, particularly in the global south. For instance, Nigeria, the largest country in West Africa in terms of population, faces a substantial housing shortage of seventeen million homes with shortages prevalent across various income brackets, despite government-led housing initiatives (Muhammad et al., 2015). This deficit continues to grow due to rapid urbanization and population expansion, leading to elevated rent prices, overcrowding, and substandard living conditions. Rental housing now constitutes a significant portion of the housing inventory in numerous nations, including some of the most developed societies globally. Approximately half of the urban populace in developing countries consists of tenants (UN-HABITAT, 2013). Multi-tenant housing is increasingly recognized as a crucial element in accommodating large numbers of families in developing nations.

In Nigerian urban areas, the surge in urban population, particularly through migration, has largely been absorbed through multi-tenant housing. Consequently, there appears to be an uptick in the development and demand for multi-tenant housing, which also serves as a means of promoting vertical housing development by utilizing land more efficiently. With more units being constructed, more revenue is generated, assuming all other factors remain constant. As a result, there is a tendency for multi-tenant housing investors/developers to become preoccupied with the returns on their investments, potentially neglecting the satisfaction of the occupants of such apartments.

However, in today's housing space, occupants of multi-tenant housing are increasingly aware and concerned about the quality of services they receive. This highlights the importance for property owners to establish lasting connections with occupants, achieve the highest levels of satisfaction, and ensure retention (CEL and Associates Inc., 2001). In lieu of this development, Bell (2001) emphasized that key factors in improving tenant retention include enhancing services and fostering strong service relationships. Also, Ballesteros (2004) argued that there is a pressing need to examine the challenges associated with multi-tenant housing and its impact on occupant satisfaction. Notably, there is a lack of information regarding occupant

satisfaction in the context of multi-tenant housing in Nigeria. Existing studies have predominantly focused on physical features and amenities, with significant contributions from researchers such as Amole (2009); Jiboye (2009); Fatoye and Odusami (2009); Ilesanmi (2010); Adeleye (2016); and Salisu et al. (2019). These studies primarily investigated the satisfaction levels of users of public housing, with a focus on how the physical attributes of residential buildings influence overall occupant satisfaction.

The present research aims to bridge this knowledge gap by assessing the influence that the challenges of multi-tenancy housing have on the satisfaction of occupants, with the view to establishing occupants perception levels that could be employed to improve occupants' satisfaction. It also implies the performance of public housing in Nigeria especially to assist policy makers, estate investors/developers, housing administrators/managers and other stake holders in the construction industry and real estate development in decision making processes such as proper prediction of design preferences of prospective clients and tenants. Informed by insights derived from prior research and an extensive literature review (Leaf, 1993; Salleh, 2011; Ubani and Nwauzoma, 2018), the observed challenges that affect occupants' satisfaction in multi-tenancy housing include security and privacy, waste management, cleanliness, noise pollution, possession of animals and pets, use of shared facilities and infrastructure, tenants attitudinal behaviours, conflicts of interest to mention a few. In this study, these challenges have been categorized into four key challenges as pivotal components influencing the satisfaction of occupants of multi-tenancy housing. These components include: Environmental Hygiene; Shared Facility; Environmental Safety and Privacy.

The primary objectives of this study were to: (i) determine the influence of Environmental Hygiene on occupants' satisfaction in multi-tenancy housing in Abuja; (ii) examine the influence of Shared Facility on occupants' satisfaction in multi-tenancy housing in Abuja; (iii) investigate the influence of Environmental Safety on occupants' satisfaction in multi-tenancy housing in Abuja; and (iv) determine the influence of Privacy on occupants' satisfaction in multi-tenancy housing in Abuja; and (iv) determine the influence of Privacy on occupants' satisfaction in multi-tenancy housing in Abuja?; (ii) to what extent does Environmental Hygiene affect occupants' satisfaction in multi-tenancy housing in Abuja?; (iii) to what extent does Shared Facility affect occupants' satisfaction in multi-tenancy housing in Abuja?; and (iv) to what extent does Privacy affect occupants' satisfaction in multi-tenancy housing in Abuja? Also, in line with the specific objectives and research questions of this study, the following hypotheses were formulated in null form, subject to acceptance or rejection based on the result of the analysis: Ho1: Environmental Hygiene does not have significant effect on occupants' satisfaction in multi-tenancy housing in Abuja; Ho2: Shared Facility does not have significant effect on occupants' satisfaction in multi-tenancy housing in Abuja; Ho3: Environmental Safety does not have significant effect on occupants' satisfaction in multi-tenancy housing in Abuja; Ho3: Environmental Safety does not have significant effect on occupants' satisfaction in multi-tenancy housing in Abuja; Abuja.

#### 2. LITERATURE REVIEW

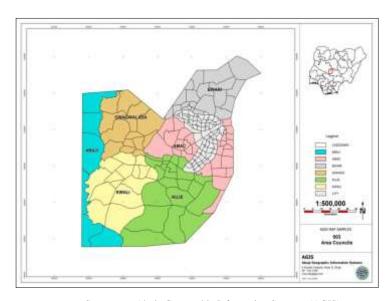
## 2.1. The Research Area

Nigeria's capital Abuja is centrally located in the country (Fig. 1). It lies between latitudes 6° 45' and longitudes 7° 39' north of the equator. Abuja was carved out of three neighboring states of Plateau, Niger and Kwara and has a land area of about 8,000 square kilometers. The master plan of Abuja was designed to accommodate about 3.2 million occupants, but currently, the population of Abuja has grown geometrically since creation to about 6 million with only about 48% of development of the city achieved. In Nigeria, all lands in the FCT are vested in the Federal Government which created the agency of the Federal Capital Development Authority (FCDA), to control the development of the FCT (Fig. 2) (Uchenna, 2013).



Source: Adapted from Ministry of the Federal Capital Territory, 1998 by Katrina Strömdahl.

Figure 1: Map of Nigeria showing the 36 states and the Federal Capital Territory Abuja



Source: Abuja Geographic Information Systems (AGIS)

Figure 2: Map of Abuja

The Federal Capital Territory Abuja is home to numerous private and public multi-tenancy housing apartments and estates which serve to accommodate the growing population of the city. For this research, 10 multi-tenancy apartments were selected from three different housing estates across the Federal Capital Territory Abuja. Four apartments were selected from the Federal Housing Authority (FHA) Gwarinpa Housing Estate located in the Gwarinpa District of Abuja Municipal Area Council (AMAC). Despite the estate comprising various apartment types, the selected apartments consist of 3-bedroom blocks of flats. Specifically, two variations of this apartment type were selected: the first variation includes one suspended floor accommodating four families, while the second variation comprises two suspended floors accommodating six families. In addition, three apartments were selected from the FHA/ENL/BAUHAUS partnership estate located in the Guzape District of AMAC. Among the different types of apartments available in the estate, the selection comprised two units of 2-bedroom semi-detached block of flats on three suspended floors accommodating eight families, as well as one unit of 3-bedroom semi-detached block of flats on three suspended floors accommodating eight families. Furthermore, three apartments were selected from the FHA Mass Housing Estate located in Zuba, in the Gwagwalada Area Council of Abuja. Among the range of apartment types available in the estate, the selected apartments include one unit of 1-bedroom block of flats accommodating eight families on three suspended floors, and one unit each of 2-bedroom and 3-bedroom blocks of flats on three suspended floors, accommodating eight families each.

## 2.2. Housing Satisfaction

Housing satisfaction encompasses satisfaction with dwelling unit and satisfaction with the neighbourhood (Onibokun, 1974). Various researchers have provided numerous definitions of housing satisfaction. Francescato et al. (1979) describe it as the internal response of residents to their housing conditions, which can be either positive or negative. Since the early 1960s, housing satisfaction has played a pivotal role in the design of large housing developments. The design process of such developments has been guided by residents' perceptions of the proposed housing project's physical features (Mohit and Azim, 2012).

Furthermore, Weidemann and Anderson (1985) delineated housing satisfaction into two distinct categories. Firstly, it is viewed as a predictor of behaviour, indicating whether residents intend to remain in their current housing or seek alternative accommodation. Secondly, housing satisfaction serves as a criterion for evaluating housing quality. The predictive behaviour aspect suggests that satisfaction with one's current housing situation influences the decision to either stay and improve the existing residence or seek a better alternative. Those opting to relocate typically do so because their current residence fails to meet their housing preferences and criteria. Housing satisfaction, as a measure of housing quality, encompasses satisfaction with various aspects such as housing unit features, provided services and facilities within the housing area, and the overall housing environment. These criteria collectively determine the level of housing satisfaction.

## 2.3. Rental Housing Satisfaction

Rental housing satisfaction is a multifaceted concept that has been explored from various disciplinary perspectives beyond Economics, including Sociology, Psychology, Planning, and Geography. Across these disciplines, theories of housing satisfaction converge on the idea that it reflects the variance between the actual living conditions of households and their desired or ideal housing and neighborhood environments (Galster 1987; Galster

and Hesser, 1981; Lu 1999). This suggests that individuals assess their residential circumstances based on their specific needs and aspirations. Satisfaction with one's living situation is characterized by a lack of grievances and a high level of alignment between the current state and desired conditions. Conversely, when there is a disparity between the actual housing situation and the required conditions, dissatisfaction may arise.

Morris and Winter (1975) introduced the concept of "housing deficit" to characterize residential satisfaction or dissatisfaction. In their model of housing adjustment and residential mobility, they propose that individuals evaluate their housing situations based on two sets of norms: internal norms, which encompass personal and family standards and aspirations for housing, and external norms, which are dictated by societal standards or cultural norms governing acceptable living conditions. Vera-Toscano and Ateca-Amestoy (2008) likened this concept to external norms or peer effects in the context of financial satisfaction.

Rossi (1955) suggested that as households transition through various life stages, their housing needs and aspirations evolve, often leading to a misalignment between their current living situation and desired housing and neighbourhood conditions. This 'lack of fit' between their present circumstances and housing preferences can result in stress or dissatisfaction, prompting households to consider migration or remodelling as means of aligning their housing situation with their evolving needs. However, any adjustments made are constrained by the household's financial resources and the information available about alternative adaptation opportunities.

#### 2.4. Empirical Review

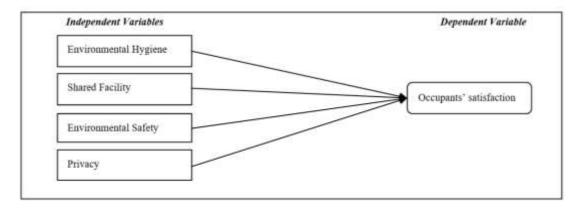
Numerous studies have delved into the satisfaction levels of tenants. Notably, Hu et al. (2024) conducted a study in Beijing, China, focusing on tenants residing in rental housing converted from non-residential buildings. Employing a stratified random sampling method, they surveyed 353 tenants from five apartment complexes using a structured questionnaire. Their hierarchical regression analysis revealed that subjective attributes such as property management for hygiene and social interaction for shared facilities exerted a more significant influence on residents' satisfaction compared to the objective physical and demographic characteristics of the apartments. Similarly, in China, Zeng et al. (2020) investigated the factors affecting the residential satisfaction of new generation migrants. They collected primary data through questionnaires administered to migrant tenants in Hangzhou, analyzing the data using descriptive and logistic regression techniques. Surprisingly, their findings indicated that the number of co-residents and the availability of shared facilities had a significant positive impact on residential satisfaction. It's important to note that while these studies offer valuable insights, their findings may not be directly applicable to the Nigerian context due to contextual differences. Therefore, empirical investigations specific to Nigeria are needed to understand the factors influencing residential satisfaction among tenants in this context.

In Nigeria, Babalola (2022) conducted a study in Ibadan to explore the impact of land tenure security on residents' satisfaction. Using a survey research design, the study distributed 452 self-administered questionnaires across four sampled peri-urban local governments. Employing hierarchical regression analysis, the study revealed, among other findings, that perceived security significantly influenced residents' satisfaction. Similarly, Oluwunmi et al. (2012) investigated the factors driving satisfaction among staff residential estates in Nigerian private universities, focusing on Covenant University. The study collected primary data via structured questionnaires from 124 residents and were analyzed using weighted arithmetic mean and the relative importance index. The findings indicated that factors such as sanitation and waste disposal systems, electricity, water supply, and security facilities significantly influenced residents' satisfaction. However, variables such as internet provision, fumigation services, and maintenance mechanisms were deemed insignificant. Although Oluwunmi et al.'s study provides valuable insights, its relevance may have diminished over time due to changing circumstances. Therefore, there is a need for further investigation to reassess the factors affecting residential satisfaction in Nigerian private university staff estates.

In their study focusing on student housing in Stockholm, Gong and Soderberg (2023) utilized structured interviews and questionnaires to collect primary data. They employed various analytical methods such as descriptive analysis, stepwise regression, t-tests, and ANOVA for data analysis. Their findings revealed that cleanliness (hygiene), kitchen facilities, and accessibility to public transport stations were significant determinants contributing to residents' satisfaction. In South Korea, Baek and Kim (2022) investigated the impact of shared housing characteristics on the housing satisfaction of single-person households. They gathered primary data through questionnaires from 620 participants in Seoul's active shared housing market and were analyzed using a PLS-Structural Equation Model. Interestingly, their results indicated that for residents of public-supply shared housing, there was no significant correlation between the characteristics of shared housing and housing satisfaction.

Holding et al. (2020) conducted a research in England, focusing on the interplay between housing concerns, mental health, and the overall wellbeing of tenants in the United Kingdom. They utilized structured interviews to gather primary data from 44 tenants with more than 2 years of residency, employing content analysis for data analysis. Their findings underscored the impact of various factors such as perceptions of community safety, housing quality, responsiveness of services, changes in benefits, and low income on the mental health and wellbeing of tenants in the UK. Conversely, Cazacove and Yapicioglu (2021) delved into the importance of privacy in influencing tenants' satisfaction in Oman. They conducted a case study in Mirbat town, Sultanate of Oman, gathering primary data from 102 traditional residences and employing descriptive statistics for analysis. Their results highlighted that tenants' satisfaction significantly increases with improved privacy. This current study expands upon previous research by employing inferential statistics, specifically multiple regression, within the Nigerian context.

#### 2.5. Research Framework



Source: Developed by Author (2024).

## 3. METHODOLOGY

#### 3.1. Research Design

This research employed a survey-based cross-sectional design to gather data from 10 different multi-tenancy housing apartments in Abuja, with each selected apartment accommodating a large number of occupants of different ethnicity, age, gender, profession, religion and social background. The data collection process involved both primary and secondary sources. Primary data was obtained through structured questionnaires administered to occupants of the apartments who can read and understand the questions in the questionnaire. Secondary data was sourced from literature review of related studies.

The research population was 620 and comprised the total number of occupants that reside in the selected apartments. However, the sample size for the research as determined using Taro Yamane's formula for sample size calculation was established at 243. This determination considered a 5% margin of error and a 95% confidence level. Furthermore, of the 243 administered questionnaires, 204 completed questionnaires were retrieved, resulting in a valid response of 84 %.

Purposive and random sampling techniques were used to select the respondents based on their willingness to participate in the exercise. The questionnaire used the Likert type scale of '1' for very insignificant '2' for significant, '3' for moderate, '4' for significant and '5' for very significant. The use of a close-ended questionnaire was vital to eliminate the subjective bias of interest in questions.

## 3.2. Method of Data Analysis

The analysis for the research was conducted using inferential analysis, where correlation analysis was employed to determine the strength and the direction of the relationship between the variables while multiple regression analysis was used for hypotheses testing. The analysis was conducted using SPSS (version 23.0).

### 4. FINDINGS AND DISCUSSION

A total of 243 questionnaires were distributed to tenants in the ten selected multi-tenant apartments in Abuja Municipal Area Council (AMAC). However, 204 questionnaires, representing 84%, were retrieved. None of the retrieved questionnaires were rejected due to incomplete information provided by the respondents, resulting in 204 useful questionnaires for analysis. This response rate is deemed appropriate, as Sekeran and Bougie (2013) argued that a 30% response rate of the total distributed questionnaires is sufficient for survey analysis.

#### 4.1 Multicollinearity Test

In statistics, multicollinearity refers to the degree or extent of relationship that exist between the independent variables in a given study (Sekaran & Bougie, 2013). It occurs when there is a high correlation between independent variables, which automatically results in an increase in standard errors of the variable coefficients and in turn makes them to be statistically insignificant (Kothari, 2014). In this study, Variance Inflation Factor (VIF) and tolerance level of the independent variables were computed and examined using regression to test the presence of multicollinearity. According to Hair et al. (2013), when VIF and tolerance level values exceed 10 and below 0.10 respectively, it indicates the presence of multicollinearity. However, Table 4.3 shows that none of the values for tolerance and VIF exceeds these thresholds. Based on this, the issue of multicollinearity does not exist among the independent variables.

Table 1: Test of Multicollinearity

	Collinearity		
Independent Variables	Tolerance	VIF	
Environmental Hygiene	.194	5.146	
Shared Facility	.161	2.179	
Environmental Safety	.114	4.791	
Privacy	.198	3.041	

Source: SPSS Output 2024

## 4.2 Coefficient of Determination

Coefficient of Determination is the analysis that explains the level of variation caused by the independent variable(s) on the dependent variable. For this study, the result is presented in Table 2, which expressed the regression equation with predictor that is significant with the following result: R = 0.397,  $R^2 = 0.698$ , Adj.  $R^2 = 0.669$ . This therefore infers that the exogenous variables (environmental hygiene, shared facility, environmental safety and privacy) account for 69.8% of variance in occupants' satisfaction of multi-tenancy housing in Abuja. Accordingly, Cohen (1992) classified coefficient of determination ( $R^2$ ) into 3 orders as follows: 0.02 as weak, 0.13 as moderate and 0.26 as substantial. Going by this classification, the value of  $R^2$  in the regression result of this study is substantial (0.69).

Table 2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.397ª	.698	.669	.647138

a. Predictors: (Constant), OS

#### 4.3 Regression Analysis and Hypothesis Testing

Regression analysis is a statistical technique whereby the direction and the degree of relationships between dependent and independent variables are assessed (Hair et al., 2013). In other words, it is a method that measures the degree or extent of the relationship between the dependent and independent variables (Sekaran & Bougie, 2013). For the purpose of this study, multiple regression analysis was employed to test the research hypotheses that explain the extent of relationships that exist between the independent variables (environmental hygiene, shared facility, environmental safety and privacy) and the dependent variable (occupants' satisfaction). Consequently, regression analysis as presented in Table 3 was conducted and the outcome of the analysis was used for the study's hypotheses testing.

Table 3: Regression result on the influence of multi-tenancy challenges on occupants satisfaction

Model	Unstandard	dized Coefficients	Standardized Coefficient	t		Sig.
	В	Std. Error	Beta			
(Constant)	-1.374	.155		-8.861	.000	
ENV-HYG	1.293	.047	.906	3.789	.000	
SHARED-FAC	378	.089	146	-1.395	.067	
ENV-SAF	1.033	.108	.916	9.569	.000	
PRIVACY	.713	.075	.206	2.847	.005	

a. Dependent Variable: OS

Based on the result presented in Table 3 above, it implies that occupants' satisfaction of multi-tenancy housing in Abuja is greatly influenced by environmental hygiene, environmental safety and privacy whereas, the influence of shared facilities was insignificant. However, the influence of hygiene, safety and privacy were positive while the insignificant effect of shared facilities was negative. In view of that, the first, third and forth hypotheses were accepted while the second hypothesis was rejected. The following section presents the discussion and justification of the research findings in comparison with previous studies.

#### 4.4 Discussion of Findings

Subsequent to the extensive literature review and considering the context of this study, Environmental Hygiene entails the cleanliness and maintenance of multi-tenancy surroundings like the buildings, facilities and immediate areas. It was hypothesized to have significant positive influence on occupants' satisfaction of multi-tenancy housing in Abuja (H<sub>1</sub>). Evident from the regression analysis, the hypothesis revealed a significant positive relation as predicted with reference from coefficient and p-values of 1.293 and 0.000 respectively and therefore the first alternate hypothesis is accepted. This result corroborates with the findings of Hu et al. (2024), which investigated the residential satisfaction levels of tenants living in rental housing buildings in Beijing and found a positive effect of hygiene on tenants' satisfaction. Also, the finding agrees with Oluwunmi et al. (2012), which investigated satisfaction driven factors of the staffs in residential estate of Covenant University and found hygiene factors to strongly improve residents' satisfaction. This result suggests that occupants in multi-tenancy houses in Abuja perceive well-hygienic facilities and spaces as promoting their health and well-being. Such facilities reduce their exposure to allergens, pollution, and infectious agents, which can lead to respiratory problems.

In addition, shared facility in the context of multi-tenancy environment refers to a communal space or equipment that is accessible to multiple tenants within a residential or commercial property. It was posited that shared facility would negatively affect the occupants' satisfaction in Abuja multi-tenancy houses (H<sub>2</sub>). However, contrary to the prediction, the construct does not have significant influence on occupants' satisfaction evident from coefficient and p-values of -0.378 and 0.067 respectively, hence rejecting the second hypothesis. The finding is consistent with Baek and Kim (2022), which examined the effect of characteristics of shared housing in single-person households on housing satisfaction of tenants in South Korea and found insignificant effect of shared facility on tenants' satisfaction. However, the result contradicts the finding of Zeng et al. (2020), which examine the factors that determine the residential satisfaction of new generation migrants in China and found significant influence. The insignificant effect of shared facilities on occupants' satisfaction could possibly stem from the well-managed and maintained nature of these facilities in multi-tenancy housing in Abuja. In such cases, occupants may not experience significant inconvenience or dissatisfaction when sharing the facilities.

Furthermore, environmental safety is considered in this context as the condition of the surroundings being free from hazards, risks, or insecurity that could potentially harm the occupants or their property. The variable was proposed in the third hypothesis (H<sub>3</sub>) to have significant positive effect on occupants' satisfaction in Abuja. Accordingly, the regression result showed a significant positive relationship as predicted, hence accepting the hypothesis. This is evident from the p-values of and Beta values of 0.000 and 1.033 respectively. The finding is supported by the results of Babalola (2022), which examined the effect of residents' land security on satisfaction and found that perceived security has a significant effect on residents' satisfaction. Similarly, the study aligns with Holding et al. (2020), which explored the relationship between housing concerns, mental health, and the wellbeing of tenants in the United Kingdom and found that community safety, among other factors, significantly affects tenants' mental health and wellbeing. The implication of this result is that occupants trust the management's proactive measures to identify and address safety and security concerns. This establishes confidence among the occupants regarding their safety and contributes to their overall satisfaction.

Lastly, privacy refers to the occupants' right to enjoy the sense of personal space, autonomy and confidentiality within their living environment. In view of that, this study hypothesized privacy to significantly promote occupants' satisfaction (H<sub>4</sub>). As predicted, the hypothesis was supported since the coefficient and the p-values showed 0.713 and 0.005 respectively. This implies that increase in privacy enhance occupants' satisfaction. The result corroborates with the finding of Cazacove and Yapicioglu (2021), which investigated the significance of privacy on tenants' satisfaction in Mirbat town of the Sultanate of Oman. The study found that that tenants' privacy significantly improve their satisfaction. Accordingly, the implication of this result is that occupants value their right to physical privacy within their rented units, including bedrooms, bathrooms, and other private areas. Therefore, occupants believe that their personal spaces will not be accessed or intruded upon by landlords, property managers, or other tenants without their consent. This appreciation of privacy also extends to the confidentiality of their personal information, such as rental agreements, payment records, and contact details, safeguarded from unauthorized access.

## 5. CONCLUSION AND RECOMMENDATIONS

Based on the findings of this study, it is concluded that various challenges and significant factors significantly impact occupants' satisfaction within multi-tenancy housing in Abuja, requiring considerable attention. The study underscores the importance of cleanliness, as maintaining high standard of environmental hygiene improves occupants' satisfaction with their living and working environment. Additionally, the study reveals that occupants in multi-tenancy apartments in Abuja prioritize factors such as location, affordability, and the condition of individual units over shared facilities. Environmental safety measures play a crucial role in promoting occupants' health and wellbeing by mitigating the risks of insecurity, accidents, and exposure to hazards, leading to greater satisfaction with their living or working place. Furthermore, providing personal space for occupants is essential, as they value the ability to control access to their living quarters, maintain the confidentiality of personal information, and engage in personal activities without interference or intrusion from others.

In view of the conclusions presented in this study, the following recommendations were made thus:

i. Owners and managers of multi-tenancy housing in Abuja should prioritize regular maintenance, sanitation, and cleaning schedules to ensure that all common areas, facilities, and shared spaces are kept clean and well-maintained. Additionally, establishing a feedback mechanism is recommended to promptly identify areas for improvement and address any concerns raised by occupants.

- ii. It is recommended that owners and managers of multi-tenancy housing upgrade shared facilities by renovating and renewing them to enhance appeal and functionality for occupants. Clear usage policies and guidelines for shared facilities should also be implemented to ensure fair and equitable access for all occupants.
- iii. Furthermore, it is essential for all stakeholders, including government and occupants, to collaborate in developing comprehensive emergency response plans and procedures. This collaboration is necessary to effectively manage emergencies such as fire, natural disasters, medical emergencies, and incidents of insecurity.
- iv. The study also emphasizes the importance of landlords, managers, and co-tenants respecting occupants' boundaries and privacy concerns. Adherence to agreed-upon access procedures and providing advance notice before entering units for non-emergency purposes is recommended.

### 6. Limitations of the Study

This study was constrained to examining only four factors influencing occupants' satisfaction in multi-tenancy housing in Abuja. Notably, the research found that shared facilities had an insignificant relationship with occupants' satisfaction. Consequently, future research endeavours should explore additional variables that could impact occupants' satisfaction, such as location and affordability. Moreover, it's worth noting that this study focused exclusively on multi-tenant housing within the Federal Capital Territory (FCT) of Abuja. This geographical limitation may restrict the generalizability of the findings to other regions of Nigeria, given variations in urban development levels. Therefore, it is recommended for future researchers to include housing estates from different regions of the country to broaden the applicability of the study's findings.

#### Acknowledgements

Authors will like to thank the Department of Architecture Bingham University, for creating a supportive collaboration and environment for this research.

#### References

Adeleye, O. (2016). Evaluation Of Tenants' Satisfaction With Rental Housing In Ilesa, Osun State, Nigeria. *International Journal of Economics, Commerce and Management*, 4(8), 571 – 588.

Amole, D. (2009). Residential satisfaction in students' housing. Journal of Environmental Psychology, 29(1): 76-85.

Babalola, T. O. (2022). Land tenure security, place satisfaction and loyalty in the peri-urban area of Ibadan City, Nigeria. *Regional Sustainability*, 3(2) 346–355.

Baek, J. and Kim, S. (2022). Effect of Characteristics of Shared Housing in Single-Person Households on Housing Satisfaction and Shared Housing Performance. *Sustainability*. 14(1), 1-21.

Ballesteros, M. M. (2004). Rental Housing for Urban Low-Income Households in the Philippines. PIDS Discussion Paper Series, No. 2004-47, Makati City: Philippine Institute for Development Studies.

Bell, J. (2001). A heavier load. National Real Estate Investor.

Cazacove, L and Yapicioglu, B. (2021). Residential architecture: evaluation of tenants' satisfaction in private culture. *The Sustainable City*, 15(25), 409-422.

CEL and Associates Inc., 2001. The Search for Quality Service. Strategic Advantage, /K7696: 13-14.

Cohen, J. (1992). A power primer. Psychological Bulletin, 112(1), 155-159.

Fatoye, E. O. and Odusami, K. T. (2009). Occupants' satisfaction approach to housing performance evaluation: the case of Nigeria. Paper presented at the RICS COBRA research conference held at the University of Cape Town. September 10 – 11: Available from: www.rics.org/cobra on February.

Francescato, G., Weidemann, S., Anderson, J. R. and Chenoweth, R. (1979). Residents' satisfaction in HUD-assisted housing: design and management factors. Washington, D.C: U.S.Department of Housing and Urban Development.

Galster, G. C. (1987). Identifying the correlates of dwelling satisfaction: An empirical critique. Environment and Behavior, 19(5), 539-568.

Galster, G. C. and Hesser, G. (1981). Residential satisfaction: Compositional and contextual correlates. Environment and Behavior, 13(6), 735–758.

Gong, A. and Soderberg, B. (2023). Residential satisfaction in student housing: an empirical study in Stockholm, Sweden. *Journal of Housing and the Built Environment*, 7(1), 1-19.

Hair, J. F., Ringle, C. M and Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. *Long Range Planning*, 46(1-2), 1–12.

Holding, E., Blank, L., Crowder, M., Ferrari, E. and Goyder, E. (2020). Exploring the relationship between housing concerns, mental health and wellbeing : a qualitative study of social housing tenants. *Journal of Public Health*, 42(3), 231-238.

Hu, X., Suo, J., Kou, N., Wu, M. and Wang, S. (2024). Analysis of residential satisfaction in the conversion of Beijing's stock buildings into rental housing. *Scientific Reports*, 11(2), 1-16.

Ilesanmi, A. O. Post – Occupancy Evaluation and Residents' Satisfaction with Public Housing in Lagos, Nigeria. Journal of Building Appraisal. 2010; 6: 153 – 68.

Jiboye, AD. (2009). Evaluating Tenant's Satisfaction with Public Housing in Lagos, Nigeria. Town Planning and Architecture, 33(4): 239-47.

Kothari, C. R. (2014). Research methodology: Methods & Techniques. New Age International Publishers, New Delhi.

Leaf, M. (1993). Land rights for residential development in Jakarta: the colonial roots of contemporary urban dualism. *International Journal of Urban and Regional*\*\*Research\*, 17, 477–491.

Lu, M. (1999). Determinants of residential satisfaction: Ordered logit vs. regression models. Growth and change, 30(2), 264-287.

Mohit, M. A. and Azim, M. (2012). Assessment of residential satisfaction with public housing in Hulhumale', Maldives. *Procedia-Social and Behavioral Sciences*, 50, 756-770.

Morris, E. W. and Winter, M., (1975). Housing norms, housing satisfaction and the propensity to move. *Journal of Marriage and Family*, 38(2), 309–320.

Muhammad, Z., Johar, F., Sabri, S. and Jonathan, Z.U. (2015). Jurnal Teknologi (Sciences & Engineering). 77(14), 23-31.

Oluwunmi, A. O., Akijare, O. A. and Izobor, O. O. (2012). User's satisfaction with residential facilities in Nigerian private universities: a study of Covenant University. *Transnational Journal of Science and Technology*, 2(11), 89-112.

Onibokun, A. G. (1974). Evaluating consumers' satisfaction with housing: an application of a systems approach. *Journal of the American Institute of Planners*, 40(3), 189-200.

Rossi, P. H. (1955). Why families move. Glencoe, IL: The Free Press.

Salisu, U. O., Odulaja, A. O, Ogunseye, N. O., Fasina, S. O. and Okunubi, S. A. (2019). Residents' satisfaction with public housing in Lagos, Nigeria. Ghana Journal of Geography (GJG), 11(1), pp. 180 – 200.

Salleh, A. G. (2011). Tenant satisfaction with public housing management: Budapest in transitionl. Housing Studies, 9(3), 215-235.

Sekaran, U. and Bougie, R. (2013). Research methods for business: A skill building approach (6th ed.). United Kingdom: John Wiley & Sons.

Ubani, O and Nwauzoma, U. (2018). Residents Satisfaction Determinants in the Rental Housing in Enugu Urbanc Enugu Statec Nigeria. *Research Journal of the Environment*. REJOEN 1, 31-38.

 $Uchenna,\,K.\,\,K.\,\,(2013).\,\,Appraisal\,\,of\,\,the\,\,Implementation\,\,of\,\,Mass\,\,Housing\,\,Programme\,\,in\,\,the\,\,FCT,\,\,Abuja\,\,(Unpublished\,\,M.Sc\,\,Thesis)\,\,ABU\,\,Zaria.$ 

UN-Habitat (2012). World Urbanization Prospects. The 2010 revision. New York: United Nations.

Vera-Toscano, E. and Ateca-Amestoy, V. (2008). The relevance of social interactions on housing satisfaction. *Social Indicators Research*, 86(2), 257-274.

Weidemann, S. and Anderson, J. R. (1985). A conceptual framework for residential satisfaction. In Home environments Springer, Boston, MA, 153-182.

Zeng, H., Ke, Q. and Yu, X. (2020). Investigating the factors affecting the residential satisfaction of new generation migrants- a case study of Hangzhou in China. *Housing Studies*, 25 (1), 83-100.