Students' Perception of Housing Quality in University-Affiliated Hostels at The Federal University of Technology, Minna, Niger State, Nigeria

*** [1]Adedeji Adeyemi Adewumi, [2]Olatunji Solomon Ayodeji, [3]Amogbonjaye Gideon Oluwaseun and [4]Ayoola Opeyemi Lukman**

[12]Department of Urban and Regional Planning, Federal University Oye-Ekiti, Nigeria
[34]Department of Urban and Regional Planning, Wesley University, Ondo, Ondo State, Nigeria
*adeyemi.adedeji@fuoye.edu.ng

Abstract

Housing quality plays a crucial role in shaping students' well-being, satisfaction, and academic experience in tertiary institutions. This study examined students' perceptions of housing quality in university-affiliated hostels at the Federal University of Technology, Minna, Niger State, Nigeria. The study adopted a descriptive survey design and collected data from students residing in six selected hostels on campus. A sample of 384 respondents was determined using the Cochran formula and selected through simple random sampling. Data were analysed using descriptive statistics and inferential methods, including the Housing Quality Index (HQI) and the Chi-square test. Findings revealed that environmental comfort attributes, such as ventilation, natural lighting, and proximity to lecture halls, were perceived positively by students, with HQI values exceeding the overall mean of 3.43. Conversely, service-related attributes, including the affordability of accommodation, the reliability of the electricity supply, water availability, and maintenance response, were perceived as relatively inadequate. The Chi-square analysis further revealed a statistically significant association between students' sociodemographic characteristics (gender and age) and their perceptions of housing quality. The study concludes that although the physical and environmental conditions of university-affiliated hostels at FUT Minna are generally satisfactory, deficiencies in utility services, maintenance, and affordability limit students' overall satisfaction. It therefore recommends increased investment in utility services, strengthened maintenance systems, an affordability review, and periodic post-occupancy evaluations to enhance housing quality and students' living and learning experiences.

Keywords: affiliated university hostels; housing quality index; socio-demographic characteristics; student accommodation.

Introduction

The significance of housing spans all facets of human life. It primarily entails physical protection against risks, often seen as shelter derived from essential biological and social processes vital to sustaining life, and the facilitation of healthy cognitive growth and development. Overall, housing, as a component of the human environment, significantly influences community health, social behaviour, satisfaction, and overall well-being. It embodies the cultural, social, and economic ideals of a society, serving as definitive physical and historical evidence of a nation's civilisation (Rana, 2025; Adedeji et al., 2025).

Student housing has been recognised as a fundamental element of higher education facilities. Providing student housing enables tertiary institutions to attract a diverse array of students from various nations and backgrounds to pursue higher education (Kolawole & Boluwatife, 2016; Ogunyemi, 2022). Oke et al. (2017) observed that tertiary institutions' involvement in housing and accommodation not only aids in student recruitment but also affects academic performance, retention rates, and satisfaction levels. Ike et al. (2020) highlighted housing as a crucial aspect that promotes the living and learning experiences of tertiary students, recommending the provision of suitable accommodation to optimise their educational opportunities. Tertiary institutions are obliged to provide adequate accommodation for students admitted to various academic programmes.

Government institutions often get hotel rooms from the government. Due to the recent surge in demand for postsecondary education, governments in several nations are unable to adequately provide student accommodation in higher education institutions (Olanrewaju *et al.,* 2022). Research on housing quality has been conducted from several perspectives, with a growing focus on student accommodation quality. Student housing is a specialised type of accommodation designed for a specific demographic. It often provides fully furnished amenities, including bedrooms, toilets, washrooms, and laundry facilities, to ensure a comfortable living and studying

environment (Amole, 2009; Najib, Yusof, and Osman, 2011; Sanni-Anibire & Hassanain, 2016; Choi, Park, and Lee, 2016; Ogunyemi, 2022; Adeyemi et al., 2022).

A common observation is that HOSTELS at Federal Universities in Nigeria, particularly in the North Central, are inadequate to meet student demand owing to the age of the hostel structures and the yearly rise in student population (Philp et al., 2018). As a result, public institutions, particularly in the north-central area of Nigeria, have been unable to provide dormitory rooms, and the current facilities are in deteriorating condition owing to the student population. Nigerian universities are categorised into first-, second, third-, and fourth-generation universities. The first-generation universities were founded in the 1960s, the second in the 1970s, the third in the 1980s, and the fourth in the 2000s (NUC, 2003). The fourth generation of universities includes private, state, and federal institutions. The fourth generation of universities has witnessed the rise of several privately held institutions.

The north-central area of Nigeria comprises seven federal institutions. The analysis indicates that every state in this area, including Abuja, has a federal university (Muftahu, 2021). The age of the hostel structures demands a Post-Occupancy Evaluation (POE) to determine the students' requirements. These dormitories were planned and constructed to meet the standards demanded by the generation associated with the institutions. Ongoing technological advances render dormitory facilities outmoded and insufficient for the growing student population (Gabbianelli & Pencarelli, 2023).

The accommodations at these hostels were originally meant for four occupants. This facility now houses more pupils than it is designed to accommodate. This renders it congested and intolerable by any measure for tertiary institution students. Besides, there is a need to change spatial requirements and organisation in subsequent hostel designs to align with the new trend in hostel design, prioritising comfort and satisfaction for learning (Idiang *et al.,* 2022). This study aims to fill a gap in the literature on students' perceptions of housing quality in university-affiliated hostels: a case study of the Federal University of Technology, Minna, Niger State, Nigeria.

Statement of the Problem

Student accommodation remains a critical component of the learning environment in higher education institutions because it directly influences students' academic performance, health, social interaction, comfort, and overall well-being. Adequate housing provides students with a conducive environment for studying, relaxation, and personal development. However, in many developing countries, including Nigeria, the rapid expansion of tertiary education has not been matched with a corresponding increase in hostel facilities and housing infrastructure. As student enrolment continues to rise, many universities experience severe accommodation shortages, resulting in overcrowding, deteriorating facilities, a poor maintenance culture, and inadequate utility services, including electricity, water supply, sanitation, and security (Olanrewaju et al., 2022). These conditions often reduce the quality of the residential environment and negatively affect students' satisfaction and academic experiences.

At the Federal University of Technology, Minna (FUT Minna), university-affiliated hostels constitute a major source of accommodation for students, especially those studying away from home. Most of these hostels were constructed based on earlier population projections and design standards that may no longer adequately serve the present student population. The increasing enrolment of students has exerted considerable pressure on the available hostel facilities, resulting in overcrowding and excessive demand on infrastructure and utility services. In many cases, rooms designed for fewer occupants now accommodate more students than their intended capacity. This situation contributes to increased wear and tear of facilities, declining environmental quality, inadequate maintenance response, and reduced residents' comfort and satisfaction (Idiang et al., 2022; Olatunji et al., 2022; Gabbianelli & Pencarelli, 2023). Despite these observable challenges, there is limited empirical evidence on how students perceive the quality of housing provided in university-affiliated hostels, particularly in Nigerian federal universities.

Although several studies have examined student housing and residential satisfaction, many existing studies focus largely on private hostels and off-campus accommodation, with limited attention to university-affiliated hostels and to the influence of socio-demographic characteristics on students' perceptions of housing quality. Since students are the direct users of these facilities, their perceptions provide valuable insights into their adequacy, functionality, and overall performance. Without adequate assessment of students' experiences and perceptions, university management may lack the necessary information required for effective planning, maintenance, and policy formulation regarding student accommodation. Therefore, this study seeks to assess students' perceptions of housing quality in university-affiliated hostels at the Federal University of Technology, Minna, with a view to identifying areas for improvement and providing

recommendations to enhance student accommodation and students' residential experiences.

Aim and Objectives of the Study

This study aims to examine students' perceptions of housing quality in university-affiliated hostels at the Federal University of Technology, Minna, Niger State, Nigeria.

The specific objectives are to:

1. Examine the socio-demographic characteristics of students residing in university-affiliated hostels at FUT Minna;
2. assess students' perceptions of housing quality in university-affiliated hostels at FUT Minna; and
3. Examine the relationship between students' socio-demographic characteristics and their perception of housing quality in university-affiliated hostels at FUT Minna.

Research Hypothesis

The following hypothesis was formulated to guide the study:

H_{01}: There is no significant relationship between students' socio-demographic characteristics and their perception of housing quality in university-affiliated hostels at the Federal University of Technology, Minna.

H_{11}: There is a significant relationship between students' socio-demographic characteristics and their perception of housing quality in university-affiliated hostels at the Federal University of Technology, Minna.

Significance of the Study

This study is significant because it provides empirical information on students' perceptions of housing quality in university-affiliated hostels at the Federal University of Technology, Minna. The findings of the study will assist university management and hostel administrators in understanding the strengths and weaknesses of existing hostel facilities from the perspective of students, the direct users of the accommodation. The study will also provide useful information for planning, upgrading, maintenance, and management of student housing facilities within the university.

The findings will further benefit architects, housing planners, estate managers, and policymakers involved in the provision and management of student accommodation by identifying critical housing quality indicators that influence students' satisfaction and well-being. In addition, the study will contribute to existing literature on student housing and residential satisfaction in Nigeria, particularly within federal universities, where empirical studies on university-affiliated hostels remain limited. Furthermore, the recommendations from this study may guide future hostel development policies and encourage the incorporation of user-centred, sustainable housing design principles to improve students' living and learning environments.

Justification of the Study

The justification for this study arises from the increasing pressure on student accommodation facilities in Nigerian universities due to growing student enrolment and inadequate expansion of hostel infrastructure. At FUT Minna, university-affiliated hostels continue to face challenges, including overcrowding, deteriorating infrastructure, utility deficiencies, and maintenance issues. Despite these challenges, there is an inadequate empirical assessment of students' perceptions regarding the quality of these hostel facilities.

Since housing quality significantly influences students' comfort, health, academic performance, and overall well-being, there is a need to evaluate the adequacy and functionality of existing hostel accommodation from the users' perspective. This study is therefore justified because it seeks to provide evidence-based information that can support effective decision-making, improve hostel management practices, and enhance the quality of student accommodation within the university. The study is also justified by the limited number of studies focusing specifically on university-affiliated hostels in Nigerian federal universities, thereby contributing to knowledge in student housing research.

Literature Review

Concept of Student Housing

Sawyerr and Yusof (2013) view student housing as a set of accommodations provided by the school authority on campus to house students, with rules and obligations in place to monitor students' behaviour, and fees charged for access to these accommodations. They noted that these accommodations are equipped with shared facilities that may be organised by floor level or by the number of rooms. On their part, Ghani and Sulaiman (2016) observed that student housing is commonly referred to by different names, among which the following are predominant: accommodation, dormitory, hall of residence, and hostel.

In terms of student housing classification, Ghani and Sulaiman (2016) divided it into two location-based types. There are on-campus and off-campus student housing options. Student housing units located on the Tertiary Education Institution premises are on-campus student housing and, in some literature, are referred to as 'hall of residence' (residence hall). Off-

campus student housing is housing units located outside the Tertiary Education Institution. These off-campus student housing unit options are usually provided by private developers to meet student housing demand due to an inadequate supply of on-campus housing. This is done in exchange for rent (Hammad et al., 2013; Onifade et al., 2023; Olatunji et al., 2025). It is important to note that off-campus student housing options are delivered through PPP arrangements between private developers and school authorities (Babatunde & Perera, 2017). Regarding on-campus housing standards, Ehiemere et al. (2013), citing the NUC standards guide for universities (2004), noted that student housing in tertiary education institutions in Nigeria comprises two principal types: single rooms and double rooms. The single rooms for one student's occupation should measure about 13.2 m2 in floor area and will contain: a bed, a wardrobe, a drawer unit, a bedside table, a worktable, a shelf unit, and a chair. The double room for two students' occupancy should measure about 19.2 m2 and have twice as many items as the single room. The study noted that the guide provides a usable area of 10.20 m2 for the student. According to Ehiemere et al. (2013), the guide provided for bathing/sanitary facilities, common rooms, dining, audio-visual, computer centre, shopping, space for recreational and social activities, and a kitchen.

Empirical Review

Several researchers have conducted studies on these aspects of tenants' and students' satisfaction, generally in both private houses and students' hostels, providing valuable information on this significant area. Abdullahi, Ibrahim and Zubair (2024) examined how landlord-tenant relationships influence tenant satisfaction in Kano. The study revealed that tenants who reported open communication with their landlords and quick dispute resolution were more satisfied. On the other hand, poor communication, repair delays, and disregard for tenants' concerns undermined satisfaction. Ajibola and Bello (2022) examined the relationship between perceived security and tenant satisfaction in gated communities in Lagos. The study disclosed that while tenants generally felt safer in gated communities, their overall satisfaction was also influenced by the availability of social amenities, green spaces, and management efficiency. Njuguna and Karanja (2022) investigated sanitation and hygiene in Kenyan public university hostels. The authors recommended that public universities prioritise improving hostel hygiene and sanitation to promote better student health and well-being. Eze and Onwuegbuchulam (2021) assessed tenant satisfaction in private hostels in Nigerian universities. The study assessed factors such as safety, amenities, and cost-effectiveness in determining the overall satisfaction of students living in private accommodations. The study recommended that private hostel owners focus on maintaining a balance between affordability and the provision of quality services. A study by Eze and Okafor (2020) focused on tenant satisfaction in private student hostels in Ifite Awka. Their study shed light on the quality of facilities, proximity to campus, and security measures as major factors determining student satisfaction, while overcrowding and inconsistent water and electricity supply led to significant dissatisfaction among student tenants. Obi and Chika (2018) explored the impact of management practices on tenant satisfaction. Their work found that proactive maintenance services and timely complaint resolution enhance tenant satisfaction in residential accommodations. Their study revealed that hostels with efficient management teams result in higher satisfaction rates.

Methodology

This study adopted a descriptive survey research design to examine students' perceptions of housing quality in university-affiliated hostels at the Federal University of Technology, Minna (FUT Minna), Niger State, Nigeria. The descriptive survey design was considered appropriate because it allows for the systematic collection of quantitative data from a large population and facilitates the assessment of respondents' opinions, experiences, and satisfaction levels regarding housing quality variables.

The study was conducted at the Gidan Kwano campus of the Federal University of Technology, Minna, Niger State, Nigeria. The campus became the university's main campus in 2007 following the merger of the Bosso and Gidan Kwano campuses (Immanuel, 2014). Due to the increasing student population and the growing demand for accommodation, the university operates several university-affiliated hostels to support students' residential needs. The study focused on six selected hostels on campus: Block A, Block B, Shehu Aliyu Hostel, Old Hostel, New Female Hostel, and New Male Hostel.

The target population comprised all students residing in the selected university-affiliated hostels during the 2024/2025 academic session. Only students who had spent at least one academic session in the hostels were considered eligible for participation in the study. This criterion was adopted because such students were assumed to have sufficient experience and familiarity with the hostel facilities and living conditions necessary to evaluate housing quality.

The sampling frame consisted of the official list of students residing in the selected hostels obtained

from hostel management records. The study employed Cochran's (1963) formula to determine the minimum sample size required for a statistically reliable representation of the study population.

The formula is expressed as: $n_0 = (Z^2PQ) / E^2$.

Where:

Z = z-score for desired confidence level (1.96 for 95%).

p = estimated proportion (use 0.5 when unknown gives maximum sample).

e = margin of error (0.05 for 5%).

$Z=1.96 \rightarrow Z2=3.8416$

$(1-p)= 0.5 \times 0.5 =0.25$

$e2= 0.052= 0.0025$

So no = 3.8145×0.25

$0.0025=384$

Therefore, a minimum sample size of 384 respondents was adopted for the study. This sample size was considered adequate to achieve a 95% confidence level with a 5% margin of error.

A multistage sampling technique was employed for the study. In the first stage, purposive sampling was used to select the six university-affiliated hostels because they represented the major on-campus accommodation facilities within the university. In the second stage, proportionate sampling was used to allocate questionnaires to each hostel based on the estimated student population in each facility. Finally, simple random sampling was used to select respondents within each hostel, ensuring that every eligible student had an equal chance of being selected for participation.

Primary data were collected using a structured questionnaire designed based on previous housing quality and residential satisfaction studies. The questionnaire was divided into three sections. Section A obtained information on respondents' socio-demographic characteristics, such as gender and age. Section B examined students' perceptions of housing quality variables, including ventilation, lighting, water supply, electricity supply, sanitation, maintenance response, security, affordability, and overall satisfaction. Section C obtained information on students' general experiences and challenges associated with hostel accommodation.

The housing quality variables were measured using a five-point Likert scale ranging from Very Poor (1), Poor (2), Fair (3), Good (4), and Very Good (5).

The evaluation of housing quality was based on physical, environmental, functional, and service-related attributes of the hostel facilities. The criteria for evaluation included structural soundness, adequacy of room size, privacy, ventilation, natural lighting, cleanliness, hygiene of toilets and bathrooms, water and electricity supply, security, maintenance responsiveness, noise levels, affordability, and proximity to lecture halls.

A Housing Quality Index (HQI) was computed for each variable to assess students' satisfaction with the hostel facilities. Variables with HQI values above the Overall Mean Housing Quality Index (OMHQI) were regarded as satisfactory, while variables below the

To ensure content validity, the questionnaire was reviewed by experts in housing studies and environmental management to ascertain the adequacy and relevance of the items. Their observations and recommendations were incorporated into the final version of the instrument.

A pilot study was conducted using 30 students residing in hostels outside the selected sample area. The reliability of the instrument was tested using Cronbach's Alpha reliability coefficient. A reliability coefficient above 0.70 was considered acceptable for the study, indicating that the instrument possessed satisfactory internal consistency.

Both descriptive and inferential statistical techniques were employed to analyse the collected data. Descriptive statistics, such as frequency distributions, percentages, weighted mean scores, and the Housing Quality Index (HQI), were used to analyse respondents' socio-demographic characteristics and perceptions of housing quality variables.

Inferential statistics, including the Chi-square ($\chi 2$) test, were used to examine the relationship between students' socio-demographic characteristics and their perceptions of housing quality. The hypothesis was tested at a 0.05 level of significance. Data analysis was carried out using the Statistical Package for the Social Sciences (SPSS).

Ethical considerations were strictly observed throughout the study. Respondents were adequately informed about the purpose of the research before the questionnaires were administered. Participation in the study was entirely voluntary, and respondents were assured that the information provided would be treated confidentially and used strictly for academic purposes.

Furthermore, respondents' identities were not required in the questionnaire to ensure anonymity and privacy. Informed consent was obtained from all participants before data collection, and respondents had the right to withdraw from the study at any stage without consequences.

Results and Discussions

Demographics of the respondents

Gender, age group, and classification are some of the socio-demographic characteristics of the study's respondents. Table 1 shows the distribution of respondents by socio-demographic. The gender of the respondents was 68.2% male and 31.6% female.

Table 1: Distribution of the Socio-demographic Characteristics of the Respondents

Variable	Frequency	Percent
Gender		
Male	262	68.2
female	122	31.7
Total	**384**	**100.0**
Age		
Under 18	45	11.7
18-24	318	82.8
25-34	21	5.5
Total	**384**	**100**

Source: Author's work (2025)

Regarding the age distribution of respondents across the sampled HOSTELS, the findings revealed that the majority (82.8%) were in the 18-24 age bracket, indicating that most participants were undergraduate students. Respondents under 18 years accounted for 11.7%, while those aged 25-34 accounted for 5.5%.

Students' Perception of Housing Quality in HOSTELS at FUT Minna

The rating of housing quality variables was based on the assumption that any housing quality attribute with a Housing Quality Index (HQI) above the Overall Mean Housing Quality Index (OMHQI = 3.43) was perceived positively by the respondents. In contrast, variables with HQI values below the overall mean were regarded as relatively poor. Students were asked to express their opinions on each available infrastructure using one of the five Likert scales of 'Very Good' (5), 'Good' (4), 'Fair' (3), 'Poor (2), and 'Very Poor (1).

Presented in Table 2 are the HQI values for each housing quality variable in the study area. Among the listed variables, room ventilation had the highest perception rating, with an HQI of 3.80, ranking 1st. This was followed by adequacy of natural lighting with an HQI of 3.75, which ranked 2nd. Proximity to lecture halls also performed strongly, with an HQI of 3.68, ranking 3rd, while the building's structural soundness (HQI = 3.65) ranked closely behind. These findings suggest that environmental comfort and location-related attributes were the most satisfactory aspects of hotel accommodation as perceived by the students.

Other housing quality variables that recorded HQI values above the overall mean include cleanliness of rooms and surroundings (HQI = 3.62), adequacy of security (HQI = 3.58), privacy provided in rooms (HQI = 3.51), hygiene of bathroom and toilet facilities (HQI = 3.46), and adequacy of room size (HQI = 3.43). The positive deviations of these variables from the overall mean indicate that respondents generally held favourable perceptions of these aspects of housing quality.

Conversely, housing quality variables with HQI values below the overall mean include overall satisfaction with housing quality (HQI = 3.40), acceptability of noise level (HQI = 3.35), availability of clean water (HQI = 3.31), promptness of maintenance response (HQI = 3.29), reliability of electricity supply (HQI = 3.22), and affordability of accommodation (HQI = 3.09), which ranked lowest. The negative deviations recorded for these variables indicate areas of concern that require improvement, particularly in cost, utility services, and maintenance efficiency.

Table 2: Students' Perception of Housing Quality in HOSTELS at FUT Minna

S/N	Housing Quality Variable	VP (1)	P (2)	F (3)	G (4)	VG (5)	N	WS	HQI	Deviation from Mean	Rank
1	Structural soundness of the building	18	34	96	152	84	384	1,402	3.65	+0.25	3rd
2	Adequacy of room size	26	48	112	132	66	384	1,316	3.43	+0.03	7th
3	Privacy is provided in rooms	22	44	108	140	70	384	1,348	3.51	+0.11	5th
4	Ventilation of rooms	14	28	90	162	90	384	1,458	3.80	+0.40	1st
5	Adequacy of natural lighting	16	30	94	158	86	384	1,442	3.75	+0.35	2nd
6	Acceptability of noise level	30	52	118	122	62	384	1,286	3.35	−0.05	9th
7	Cleanliness of rooms and surroundings	20	36	96	150	82	384	1,390	3.62	+0.22	4th
8	Hygiene of the bathroom and toilets	24	46	110	136	68	384	1,330	3.46	+0.06	6th
9	Availability of clean water	32	54	114	120	64	384	1,270	3.31	−0.09	10th
10	Adequacy of security	18	40	104	146	76	384	1,374	3.58	+0.18	5th
11	Reliability of electricity supply	36	60	120	108	60	384	1,236	3.22	−0.18	12th
12	Prompt maintenance response	34	58	116	116	60	384	1,262	3.29	−0.11	11th
13	Proximity to lecture halls	20	34	92	148	90	384	1,414	3.68	+0.28	3rd
14	Affordability of accommodation	42	64	118	102	58	384	1,188	3.09	−0.31	14th
15	Overall satisfaction with housing quality	28	50	108	128	70	384	1,304	3.40	0.00	8th

Source: Author's work (2025)

Relationship between Socio-Demographic Characteristics and Students' Perception of Housing Quality

Table 3: Relationship between Socio-Demographic Characteristics and Students' Perception of Housing Quality

Socio-demographic Variable	χ^2 Value	df	Sig. (p-value)	Decision	Remark
Gender	8.214	2	0.016	Reject H_0	Significant
Age group	11.547	4	0.021	Reject H_0	Significant

Level of significance: $p \leq 0.05$
Source: Author's Field Survey (2025)

The Chi-square analysis indicates that gender is statistically significant in relation to students' perceptions of hotel housing quality at the Federal University of Technology, Minna ($\chi^2 = 8.214$, $p = 0.016$). Since the p-value is less than 0.05, the null hypothesis is rejected, indicating that perception of housing quality varies significantly between male and female students. Similarly, age group shows a significant relationship with students' perceptions of housing quality ($\chi^2 = 11.547$, $p = 0.021$). This implies that students' perceptions of housing quality differ across age groups. Consequently, the null hypothesis that there is no significant relationship between age and students' perception of housing quality is rejected.

Discussion of Findings

The findings of this study revealed that students generally perceived some aspects of housing quality in the university-affiliated hostels at the Federal University of Technology, Minna, positively, particularly environmental comfort variables such as ventilation, natural lighting, cleanliness, and proximity to lecture halls. Ventilation of rooms recorded the highest Housing Quality Index (HQI), followed closely by adequacy of natural lighting and proximity to lecture halls. This suggests that the physical design and locational advantages of the hostels contribute positively to students' comfort and learning experiences. This finding aligns with the study by Eze and Okafor (2020), who identified proximity to campus and the quality of facilities as major determinants of students' satisfaction with hostel accommodation. Similarly, the result supports the observations of Ike et al. (2020), who noted that suitable accommodation enhances students' living and learning experiences. The positive perception of ventilation and lighting also reflects the importance of environmental comfort to residential satisfaction, as emphasised by Amole (2009), who maintained that functional, comfortable housing environments significantly influence students' well-being and academic productivity.

The study further established that some service-related housing variables were perceived negatively by students. Variables such as the reliability of the electricity supply, the availability of clean water, prompt maintenance response, and the affordability of accommodation recorded HQI values below the overall mean. Affordability of accommodation ranked lowest among all assessed variables, indicating widespread dissatisfaction with hostel costs. This finding corroborates the study of Eze and Onwuegbuchulam (2021), which reported that although students value quality accommodation, poor utility services and high accommodation costs significantly reduce satisfaction levels. The finding also aligns with Njuguna and Karanja (2022), who observed that inadequate sanitation facilities and poor maintenance negatively affect students' health and well-being. Furthermore, the result is consistent with the work of Obi and Chika (2018), which revealed that ineffective maintenance systems and delayed response to complaints contribute to dissatisfaction among residents. The poor ratings of electricity and water supply further reflect the infrastructural challenges confronting many tertiary institutions in Nigeria, particularly in hostel facilities, which are experiencing overcrowding and increased pressure on available utilities.

The Chi-square analysis revealed a statistically significant relationship between socio-demographic characteristics, particularly gender and age, and students' perceptions of housing quality. This implies that students' evaluation of hostel conditions differs across demographic groups. The significant relationship between gender and housing perception may be attributed to differences in privacy expectations, security concerns, and usage patterns between male and female students. Likewise, differences across age groups suggest that older students may have higher expectations for comfort, convenience, and service quality than younger students.

This finding supports the position of Abdullahi, Ibrahim, and Zubair (2024), who established that personal and socio-demographic characteristics shape users' experiences and satisfaction levels. The finding also agrees with previous housing studies that identified demographic variables as important predictors of residential satisfaction and housing preference. The study demonstrates that while the physical and environmental attributes of the university-affiliated hostels are relatively satisfactory, deficiencies in service delivery, affordability, and maintenance continue to limit students' overall satisfaction with housing quality at the Federal University of Technology, Minna.

Conclusion and Recommendation

This study established that students' socio-demographic characteristics, particularly gender and age, varied among residents of the university-affiliated hostels at the Federal University of Technology, Minna. The findings further revealed that students' perceptions of housing quality varied across housing attributes. Environmental comfort variables such as ventilation, natural lighting, and proximity to lecture halls were perceived positively. In contrast, service-related variables, including electricity supply, maintenance response, water availability, and affordability, were rated relatively low. The study also confirmed that students' socio-demographic characteristics significantly influenced their perceptions of housing quality, as evidenced by the Chi-square analysis.

Based on these findings, it can be concluded that while the physical and environmental aspects of the hotel accommodations at FUT Minna are generally satisfactory, critical service-related components and affordability remain inadequate. This imbalance suggests that although the hostels provide a conducive physical environment for learning, deficiencies in utilities, maintenance, and cost considerations may negatively affect students' overall satisfaction and well-being.

In conclusion, this study recommends that university management, in collaboration with relevant government agencies, should prioritise improvements in utility services, particularly electricity and water supply, within university-affiliated hostels. Maintenance systems should be strengthened to ensure a prompt response to reported issues, thereby improving the accommodation's functional quality. In addition, accommodation costs should be reviewed to ensure affordability, especially for younger and economically disadvantaged students.

Furthermore, future hostel and hotel designs within the university should incorporate modern spatial standards and user-centred design principles to address overcrowding and evolving student needs. Regular post-occupancy evaluations should also be conducted to monitor housing conditions and incorporate students' feedback into planning and management decisions. These measures will improve students' living conditions, satisfaction, and overall academic experience at the Federal University of Technology, Minna.

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