
EVALUATION OF STUDENT-CENTRED FACILITIES IN SOUTHWESTERN NIGERIAN PUBLIC UNIVERSITIES HOSTELS

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Abstract

University hostel accommodation in Nigeria serves far more than a sleeping space, it is foundational for academic success, social interaction, and student well-being. However, many public universities in Southwestern Nigeria continue to experience persistent and systemic deficiencies in hostel provision. These challenges include inadequate accommodation capacity, poor maintenance culture, overcrowding, insufficient student-centred facilities, unreliable utility services, and deteriorating physical conditions, all of which negatively affect students' comfort, health, academic performance, and quality of campus life. This study therefore evaluates the student-centred facilities in southwestern Nigerian public universities hostels with a view to making appropriate suggestions that will improve student's performance and control overcrowding.

A quantitative survey design was adopted, and data were collected through structured questionnaires administered to students across six universities namely, University of Lagos, Olabisi Onabanjo University, University of Ibadan, Obafemi Awolowo University, Federal University of Technology Akure, and Ekiti State University. 350 questionnaires were distributed, 333 were retrieved and found valid for analysis, representing a 95.1% response rate. Descriptive statistics, mean weighted values, cross-tabulation, correlation analysis, and prioritization ranking were used to analyze the data.

The findings showed that core utilities such as electricity, water supply, and security were relatively stronger than support facilities such as ICT infrastructure, study rooms, kitchen areas, laundry spaces, and recreational spaces. It also revealed weaknesses in maintenance culture, overcrowding, noise control, toilet facilities, and bathroom provision. Students placed the highest priority on water supply, electricity, ICT facilities, study spaces, and sanitation.

The study concluded that student-centred hostel facilities in Southwestern Nigerian public universities were unevenly provided and require stronger management attention to support student welfare and academic life. It recommends that hostel development should integrate ICT support, study areas, kitchens, recreation, accessibility, and preventive maintenance from the outset.

Keywords: Student-centred facilities, University hostels, Nigerian public universities, Hostel facilities.

1.0 Introduction

University hostels in Nigeria are central to the student experience because they shape daily living, informal learning, peer interaction, and access to basic services. When these facilities are well planned, hostel support concentration, rest, social support, and a sense of belonging. When hostels are poorly provided, they become sources of stress, overcrowding, insecurity, and reduced academic effectiveness (Ibiyeye et al., 2024; Utile, 2024).

In Southwestern Nigeria, increasing student enrolment has not been matched by corresponding growth in hostel capacity and quality. Many hostels suffer from inadequate study areas, weak sanitation, poor ventilation, unreliable utilities, and insufficient recreational or communal spaces. These deficiencies are not minor inconveniences; they affect how students study, rest, and live on campus (Adewumi & Olatunji, 2023; Usman, 2024).

From an architectural and planning perspectives, there is growing recognition that student hostel design must respond to contemporary academic, social, and technological realities. Modern students require flexible spaces that support individual study, collaborative learning, digital connectivity, recreation, and social interaction. International best practices emphasize user-centred, sustainable, and context-responsive hostel design as a means of enhancing student satisfaction and institutional competitiveness (UNESCO, 2022). However, many Nigerian university hostels remain rooted in outdated design models that no longer align with current pedagogical and lifestyle demands.

Institutional and governance constraints also play a significant role in sustaining the accommodation deficit. Limited funding, bureaucratic delays, and inadequate maintenance frameworks have constrained universities' capacity to deliver and manage student housing effectively. Even where new hostel projects are initiated, challenges related to project execution, staffing, and facilities management often delay their operationalization, reducing their intended impact (Ogunleye and Ibrahim, 2025). This gap between infrastructure provision and functional management underscores the need for integrated planning approaches that consider lifecycle performance rather than construction alone.

The evaluation of student-centred facilities therefore remains important for both academic and institutional reasons. Student accommodation is no longer properly understood as a simple welfare issue; it is part of the infrastructure that sustains student performance, social stability, and campus identity. This study assesses hostel facilities in selected public universities in Southwestern Nigeria in order to provide an evidence-based picture of the condition, availability, and perceived importance of the facilities used by students.

Thus, the study aimed to identify the key student-centred facilities required in selected university hostels, assess their current provision and condition, evaluate user perceptions of these facilities, determine student priorities for a new hostel, and translate the findings into a design basis for university hostels.

2.0 Literature Review

2.1 Introduction

The literature relevant to student-centred hostel design in Southwestern Nigerian universities establishes the importance of university residential environments in supporting students' academic activities, wellbeing, social interaction, and everyday living. Student hostels are increasingly understood as more than accommodation facilities because they provide environments in which students sleep, study, socialize, recreate, and develop social relationships. The quality of these environments is influenced by the organization of

residential spaces, the availability and functionality of support facilities, environmental conditions, circulation, privacy, safety, and opportunities for social interaction (Poku and Nwosu, 2021; Kasdan et al., 2021; Song and Dincer, 2025). These considerations provide a basis for examining the extent to which existing university hostels respond to students' needs and for identifying design requirements for student-centred hostel development.

2.2 Student Hostels and Residential Spaces in University Campuses

Student hostels are purpose-designed residential facilities that accommodate students within or near tertiary institutions. They function as living-learning environments in which accommodation, academic activities, social interaction, recreation, and personal development occur within the same residential setting (Nwanekezie and Mendie, 2019; Akinola, 2020). Consequently, the effectiveness of a hostel cannot be assessed solely by the number of bedrooms it provides. The arrangement of bedrooms, sanitary facilities, study spaces, communal areas, circulation systems, and environmental controls determines how effectively students can perform their daily activities. Hostel environments therefore mediate students' experiences through spatial planning, material selection, lighting, ventilation, acoustics, and the provision of facilities that support academic and social life (Kasdan, Smith, and Patel, 2021).

A hostel space provides the architectural and environmental framework within which students undertake residential, academic, and social activities. Its quality is influenced by the relationship between private and communal spaces, the adequacy of basic services, environmental comfort, and the availability of facilities that respond to students' changing needs. Well-designed hostel environments can support academic concentration, reduce stress, facilitate social interaction, and improve students' overall residential experience (Poku and Nwosu, 2021; Oladiran, 2023). The design of university accommodation therefore requires an integrated approach in which residential comfort, academic support, social interaction, safety, accessibility, and functional efficiency are considered together.

2.3 The Role of Student-Centred Hostel Facilities in Universities

Student-centred hostel facilities play several interconnected roles in university environments. They provide residential comfort, support academic activities, facilitate social interaction and community formation, and contribute to institutional and economic development (Poku and Nwosu, 2021; Kasdan et al., 2021; Song and Dincer, 2025). The importance of these roles arises from the amount of time students spend within hostel environments and the range of activities undertaken there.

In terms of student wellbeing and residential comfort, hostel buildings function as environmental moderators. In a tropical setting such as Ogbomoso, factors including building orientation, cross-ventilation, daylight control, shading, and thermal conditions influence the physical comfort of residents (Adeagbo, 2019; Uzuegbunam et al., 2024). Poor ventilation, overheating, overcrowding, inadequate lighting, and excessive noise can contribute to discomfort, fatigue, stress, and reduced concentration. Conversely, adequate natural ventilation, controlled daylight, acoustic buffering, hygienic sanitation, and reliable water facilities can support students' physical and psychological wellbeing. Access to natural light, outdoor views, greenery, courtyards, and semi-private social spaces can also reduce feelings of isolation and create opportunities for controlled social interaction (Poku and Nwosu, 2021; Kasdan et al., 2021). This demonstrates that residential comfort encompasses both physical environmental conditions and the psychological experience of the space.

Hostels also serve an academic support function because students frequently undertake academic activities within their residences. Quiet study rooms, reading areas,

discussion spaces, adequate lighting, electrical supply, ICT facilities, and reliable connectivity can support individual and collaborative learning (Song and Dincer, 2025). The provision of such facilities reduces dependence on bedrooms that may be overcrowded or unsuitable for sustained study and provides alternatives to central academic facilities. Flexible common spaces can also accommodate different learning activities depending on their configuration and management. Consequently, the academic contribution of student hostels extends beyond accommodation to include the creation of environments that support study habits, peer-to-peer learning, and academic routines (Kasdan et al., 2021).

Hostels are also important settings for community formation and social identity. For many students, university accommodation provides an early experience of independent communal living, making the spatial organization of shared facilities important to social development. Common lounges, recreation rooms, courtyards, kitchens, dining areas, and multipurpose spaces create opportunities for interaction, cultural exchange, friendship, and peer support. Such spaces can strengthen students' sense of belonging and facilitate social integration within the university community (Poku and Nwosu, 2021; Kasdan et al., 2021). In institutions such as LAUTECH, where students may have diverse social and cultural backgrounds, appropriately planned communal environments can contribute to a shared institutional identity.

The institutional and economic implications of student accommodation are also significant. Adequate hostel provision can reduce pressure on off-campus housing, reduce transportation demands, and support campus-based services such as food, maintenance, security, and retail activities. Durable materials, efficient building services, and appropriate maintenance arrangements can reduce long-term operational costs and improve the performance of hostel buildings (Nwanekezie and Mendie, 2019; Akinola, 2020). At the wider urban scale, student accommodation can stimulate demand for food, transportation, services, and small businesses. Hostel infrastructure therefore represents not only a welfare provision but also an institutional and economic asset.

2.4 Spatial Typologies in Student Hostel Facilities

Student hostels comprise interconnected spatial systems that support residential, academic, social, welfare, circulation, outdoor, and operational functions (Kasdan et al., 2021; Poku and Nwosu, 2021). Private living domains form the core residential spaces and accommodate sleeping, individual study, storage, and personal retreat. Their design should address privacy, appropriate furniture arrangements, natural lighting and ventilation, storage, electrical supply, and digital connectivity. The quality of these spaces directly affects students' ability to rest and undertake individual activities; while overcrowding and inadequate environmental conditions can negatively affect wellbeing and productivity.

Academic-support spaces include quiet study rooms, reading lounges, tutorial rooms, discussion areas, and ICT-enabled learning spaces. These facilities extend academic activities into the residential environment and provide opportunities for both individual and collaborative learning. Their effectiveness depends on appropriate lighting, acoustic control, furniture, and connectivity. Social and developmental spaces, including lounges, recreation rooms, courtyards, outdoor gathering spaces, and multipurpose halls, provide opportunities for interaction, recreation, informal networking, and community formation. Their design and location should encourage social engagement without creating excessive disturbance within private residential areas (Kasdan et al., 2021).

Service and welfare spaces provide for the everyday domestic and sanitary requirements of hostel residents. Bathrooms, kitchens, laundry rooms, water supply points,

and waste management areas are essential to the health, hygiene, convenience, and general functionality of high-density student accommodation. Their adequacy and maintenance are therefore important considerations when evaluating hostel performance (Oladiran, 2023). Circulation and transitional spaces, including corridors, staircases, ramps, lobbies, verandas, and breezeways, similarly contribute to movement, orientation, safety, interaction, ventilation, and environmental buffering. They should therefore be considered active components of hostel planning rather than merely residual spaces.

Outdoor spaces such as landscaped courtyards, shaded seating areas, gardens, green buffers, pedestrian pathways, and recreational grounds provide extensions of the indoor residential environment. They offer opportunities for relaxation, physical activity, informal interaction, and contact with outdoor environments. In high-density student accommodation, these spaces can provide relief from indoor congestion and contribute to the environmental and psychological quality of the residential setting (Poku and Nwosu, 2021). Operational and management spaces, including security posts, administrative offices, storage rooms, staff facilities, and building service rooms, support the administration, maintenance, security, and daily functioning of hostel facilities. Their appropriate provision is essential to maintaining the quality and safety of the residential environment.

3.0 Methodology

3.1 Study area

The study area is Southwestern Nigeria, one of the country's six geopolitical zones. The region extends along the Atlantic coast from the Republic of Benin in the west toward Nigeria's South-South region in the east. It is one of the most urbanized and economically active parts of the country, hosting major metropolitan centres such as Lagos and Ibadan, alongside numerous medium-sized cities and university towns.

3.2 Research design

This study adopted a mixed-methods research design that combined both descriptive and exploratory approaches. Mixed methods are appropriate where both breadth (quantitative description of prevalence, satisfaction scores, and measured environmental performance) and depth (qualitative understanding of user priorities, lived experience, and managerial constraints) are required (Creswell and Plano Clark, 2017; Creswell, 2018). The combined approach allowed for the triangulation of data sources and methods, strengthening the credibility of findings and enabling the study to address (e.g., which facilities are present; energy and water use rates).

Following the typology of research designs. The primary units of analysis used are student hostel buildings (physical and technical performance) and hostel occupants and managers (user perceptions and institutional practices).

3.3 Sampling frame

The sampling frame for this study comprised of thirteen (13) recognized institutionally managed university student hostels within selected universities in Southwestern Nigeria. These hostels constitute the accessible population for evaluating the adequacy, functionality, and student-centredness of facilities in campus residential environments.

Table 1: Selected Southwestern Nigeria universities

S/N	University Name	Type (Federal and State)	Hostels (number)
1.	University of Lagos, Lagos state.	Federal	16
2.	Lagos State University, Lagos state.	State	12
3.	Federal University of Agriculture, Abeokuta, Ogun state.	Federal	5
4.	Olabisi Onabanjo University, Ago-Iwoye, Ogun state.	State	3
5.	University of Ibadan, Oyo state	Federal	9
6.	Ladoke Akintola University of Technology, Ogbomoso, Oyo state.	State	4
7.	Obafemi Awolowo University, Ile-Ife, Osun state.	Federal	10
8.	Osun State University, Osun state.	State	6
9.	Federal University of Technology, Akure, Ondo state.	Federal	8
10.	Adekunle Ajasin University, Akungba-Akoko, Ondo state.	State	4
11.	University of Medical Sciences, Ondo state.	State	8
12.	Ekiti State University, Ekiti state.	State	9
13.	Federal University Oye-Ekiti, Ekiti state.	Federal	8
Total			102

Source: Author's Compilation, (2025)

3.4 Sample Size

For this study, a total of six (6) university hostels from the preliminary sampling frame of Southwestern Nigerian universities were selected for data collection. These universities are; University of Lagos (UNILAG), Olabisi Onabanjo University (OOU, Ago-Iwoye), University of Ibadan (UI), Obafemi Awolowo University (OAU), Ile-Ife, Federal University of Technology, Akure (FUTA) and Ekiti State University (EKSU). The selection was purposively aimed at ensuring diversity in hostel typologies, age of buildings and management systems. Due to time and logistical constraints, it is impractical to include all hostels across the region. Therefore, the selected hostels provided representative insights into the current provision of student-centred facilities and to allow meaningful comparison across sites.

To determine the appropriate sample size for the survey, the Slovin formula was employed (Slovin, 1960)

$$n = \frac{N}{1 + N e^2}$$

Where:

- n = Sample size
 - N = Population size (2,800 students)
 - e = Margin of error (0.05, corresponding to 95% confidence level)
- n = 350

Thus, 350 questionnaires were administered across the selected universities hostels. This sample size was sufficient to achieve statistically meaningful results while remaining feasible for fieldwork. The questionnaires were distributed proportionally according to hostel occupancy, ensuring representation across gender, year of study, and room type (single and shared).

Table 2: Sample Size of Selected Hostels in Southwestern Nigeria Universities

S/N	University	Type (Federal and State)	SampleSize (Questionnaires)
1.	University of Lagos, Lagos state.	Federal	75
2.	Olabisi Onabanjo University, Ago-Iwoye, Ogun state.	State	50
3.	University of Ibadan, Oyo state.	Federal	63
4.	Obafemi Awolowo University, Osun state.	Federal	63
5.	Federal University of Technology, Akure, Ondo state.	Federal	57
6.	Ekiti State University, Ekiti state.	State	42
Total			350

Source: Author's field survey (2025)

3.5 Method of Data Collection

A multistage sampling technique was adopted for this study to ensure a systematic and context-sensitive selection of university hostels and student respondents. The selection of Southwestern Nigeria was due to its dense concentration of federal and state universities, which collectively offer a representative range of hostel typologies, age, management systems. Selecting this region also aligned the research geographically with Ogbomosho, ensuring that findings and design recommendations were locally relevant and grounded in comparable climatic, social, and institutional conditions.

Stage 1: It involved the identification of all major universities' hostels in Southwestern Nigeria.

Stage 2: It entailed categorizing the hostels according to their institutional type (federal or state), size, and location to understand the distribution of facilities and management practices.

Stage 3: It was the purposive selection of six representative hostels, one from each state, ensuring diversity in facility types, hostel age, occupancy, and sustainability practices (Table 2).

Stage 4: It involved identifying the student's population within the selected hostels using hostel registers obtained from the Estates and Student Affairs offices. The estimated population is two thousand and eight hundred (2,800) students across the six hostels, which served as the sampling frame for questionnaire distribution.

Stage 5: It featured the selection of individual student respondents. Incidental (convenience) sampling was used to administer questionnaires and capture students who were available during data collection sessions. Data was collected during various time slots, including morning, afternoon, and evening periods, to account for differences in student schedules and usage of hostel facilities. Peak activity periods, such as week days with high hostel occupancy and weekend study or social activity, were also targeted to capture a diverse range of student experiences.

This multistage approach allowed for both purposive and opportunistic sampling, providing a representative sample of students and hostels while ensuring that key variables such as student-centred facility provision and user satisfaction are adequately captured.

Observational data, field measurements, and questionnaire responses provided a robust dataset for assessing facility quality and student satisfaction across the selected Southwestern Nigerian Universities hostels.

The analysis of data collected on the assessment of student-centred facilities in selected university hostels in SouthWestern Nigeria. A total of three hundred and fifty (350) questionnaires were administered across six selected universities, of which three hundred and thirty-three (333) were validly completed and analyzed, representing a 95.1% response rate.

Table 3: Distribution and Retrieval of Questionnaires

S/N	University	Type	Sample Size	Retrieved Questionnaires
1	University of Lagos, Lagos.	Federal	75	72
2	Olabisi Onabanjo University, Ago-iwoye, Ogun state.	State	50	47
3	University of Ibadan, Oyo state	Federal	63	60
4	Obafemi Awolowo University, Ile-ife, Osun state.	Federal	63	59
5	Federal University of Technology, Akure, Ondo state.	Federal	57	54
6	Ekiti State University, Ekiti state.	State	42	41
Total			350	333

Source: Author's Field Survey, 2026

The distribution shows that the University of Lagos had the highest number of respondents, while Ekiti State University had the least. The relatively high retrieval rate across all institutions indicates strong participation and reliability of responses as shown in Table 3.

4.0 Findings and Discussion

The findings were presented according to the study objectives using descriptive statistics, including frequencies, percentages, and mean values. The study employed descriptive statistical analysis, comparative analysis, Pearson correlation analysis and ranking techniques, with the findings interpreted in relation to existing literature and case-study evidence.

4.1 Identification of Student-Centred Facilities in Selected University Hostels

This section addressed the first study objective by identifying the key student-centred facilities available in selected university hostels. Respondents assessed the availability of essential facilities, including study areas, social spaces, sanitation, utilities, security, and recreational facilities. The findings were presented in Table 4 using three response categories: Available, Partially Available, and Not Available.

Table 4: Availability of Student Centred Facilities in Selected University Hostels (N = 333)

S/N	Facility	Available	Not Available	Partially Available
1	Reading / Study Room	98 (29.4%)	142 (42.6%)	93 (27.9%)
2	Common Room	112 (33.6%)	121 (36.3%)	100 (30.0%)
3	Kitchen / Cooking Area	76 (22.8%)	189 (56.8%)	68 (20.4%)
4	Laundry Room	85 (25.5%)	173 (52.0%)	75 (22.5%)
5	ICT Facility	64 (19.2%)	201 (60.4%)	68 (20.4%)
6	Adequate Toilet Facilities	121 (36.3%)	98 (29.4%)	114 (34.2%)
7	Bathroom / Shower	130 (39.0%)	90 (27.0%)	113 (34.0%)
8	Waste Disposal Facilities	118 (35.4%)	102 (30.6%)	113 (34.0%)
9	Security Post	145 (43.5%)	82 (24.6%)	106 (31.8%)
10	Recreational Space	72 (21.6%)	187 (56.2%)	74 (22.2%)
11	Steady Water Supply	109 (32.7%)	104 (31.2%)	120 (36.0%)
12	Electricity Supply	152 (45.6%)	71 (21.3%)	110 (33.0%)
13	Parking Space	88 (26.4%)	154 (46.2%)	91 (27.3%)
14	Outdoor Sitting Area	95 (28.5%)	140 (42.0%)	98 (29.4%)

Source: Author's Field Survey, 2026.

The results in Table 4 indicate that the availability of student-centred facilities varied across the selected university hostels, with most facilities reported as either partially available or unavailable. Academic-support facilities, such as study rooms, and social spaces, including common rooms, were inadequately provided, limiting opportunities for learning and interaction. Essential living facilities, such as kitchens and laundry areas, were also insufficient in many hostels.

ICT facilities recorded poor availability, while sanitation facilities, although generally present, were often only partially functional due to maintenance or capacity challenges. Water and electricity supply were inconsistent, with many respondents reporting unreliable service. Security facilities were relatively better provided but were not consistently effective. Recreational and outdoor facilities also recorded low levels of availability, indicating limited provision for students' leisure and well-being. Overall, the findings suggested that the selected hostels did not adequately provide the range of student-centred facilities required to support students' academic, social, and residential needs.

4.2 Assessment of the Condition of Hostel Facilities in Selected Universities

This section presented the analysis of the adequacy and condition of student-centred facilities across selected university hostels in Southwestern Nigeria. Data were obtained from three hundred and thirty-three (333) responses and supported with field observations, photographic evidence, and architectural layout assessment. The evaluation covered key facility indicators using Mean Weighted Value (MWV), Total Weighted Value (TWV), and Average Weighted Value (AWV) to determine the overall state of hostel infrastructure. The results were summarized in Table 5.

Table 5: Functional Assessment of Selected Hostel Facilities

S/N	Facility Indicator	SA	A	N	D	SD	TWV	AWV	MWV
1	Electricity Supply	85	92	48	60	48	1,105	3.32	3.32
2	Water Supply	72	88	52	65	56	1,054	3.17	3.17
3	Toilet Facilities	30	55	40	110	98	808	2.43	2.43
4	Bathroom Facilities	28	50	42	115	98	795	2.39	2.39
5	Waste Disposal	40	68	50	95	80	892	2.68	2.68
6	Room Ventilation	60	80	55	78	60	1,001	3.01	3.01
7	Lighting Facilities	90	95	50	55	43	1,134	3.41	3.41
8	Security Services	35	60	45	105	88	849	2.55	2.55
9	Maintenance Culture	20	45	38	120	110	744	2.23	2.23
10	Overcrowding	15	40	35	120	123	703	2.11	2.11
11	Noise Control	18	42	40	118	115	718	2.16	2.16
12	General Cleanliness	55	75	52	85	66	952	2.86	2.86

SA= Strongly Agree(5), A=Agree (4), N= Neutral (3), D= Disagree (2), SD = Strongly Disagree (1)

Source: Author's Field Survey (2026)

The findings in Table 5 indicated a moderate overall functionality of hostel facilities, with a grand mean of 2.86. Basic utilities such as lighting, electricity supply, room ventilation, cleanliness, and waste disposal performed relatively well, suggested that these essential services were generally functional across the selected hostels.

However, key aspects of student welfare recorded poor ratings. Maintenance culture, overcrowding, noise control, and sanitary facilities had low mean values, indicating inadequate maintenance, excessive pressure on existing facilities, and poor living conditions. Overall, while core utilities were moderately functional, deficiencies in maintenance and sanitation reduced the effectiveness of hostel facilities and negatively affect students' residential experience.

4.2.1 University-Based Functional Analysis

The cross-tabulation analysis in Table 6 further revealed disparities between federal and state universities. Federal institutions consistently performed better in terms of hostel

facilities in comparison to state universities. This gap reflected differences in funding capacity, management efficiency, and infrastructural investment.

Table 6: Hostel Facility Functionality in Federal and State Universities Using Percentage Response Distribution

S/N	Facility Indicator	Federal Universities (SA+A)	(%)	Federal (%) (D+SD)	State Universities (%) (SA+A)	State (%) (D+SD)
1	Electricity Supply	68		22	54	34
2	Water Supply	65		25	52	36
3	Toilet Facilities	38		48	30	55
4	Bathroom Facilities	35		50	28	57
5	Waste Disposal	50		35	42	45
6	Room Ventilation	60		28	48	38
7	Lighting Facilities	72		18	58	30
8	Security Services	45		40	35	48
9	Maintenance Culture	30		55	22	62
10	Overcrowding	25		60	18	68
11	Noise Control	28		58	20	65
12	General Cleanliness	55		32	45	42

SA= Strongly Agree(5), A=Agree (4), N= Neutral (3), D= Disagree (2), SD = Strongly Disagree (1)

Source: Author's Field Survey (2026)

The findings in Table 6 showed that respondents in federal universities generally reported higher levels of hostel facility functionality than those in state universities. Basic utilities such as electricity and lighting received more positive ratings in federal institutions, while state universities recorded comparatively lower satisfaction levels.

Conversely, maintenance culture and overcrowding attracted the highest levels of dissatisfaction in both categories of universities, with state universities reporting poorer conditions. These findings suggested that, although essential utilities performed relatively well, significant challenges remained in the maintenance and management of hostel facilities. Overall, hostel functionality was better in federal universities, but both institution types require improvements to provide a more conducive living environment for students.

4.2.2 Correlation Analysis of Hostel Facilities

To examine the relationship between the availability of facilities and their functional condition, a correlation analysis was conducted using Pearson's correlation coefficient.

Table 7: Correlation Between Availability and Functionality of Hostel Facilities

Variables	Availability of Facilities	Functionality of Facilities
Availability of Facilities	1.000	0.642
Functionality of Facilities	0.642	1.000

Source: Author's Field Survey and Compilation (2026).

The findings in Table 7 revealed a moderately strong and statistically significant positive relationship between the availability and functionality of hostel facilities ($r = 0.642$, $p < 0.01$). This indicated that hostels with more available facilities tend to have better functional performance, highlighting the close link between facility provision and operational effectiveness.

The results further suggested that improving hostel quality requires more than increasing the number of facilities. Effective maintenance and management were equally important to ensure that available facilities remain functional and meet students' needs. The statistical significance of the relationship confirmed that the association is reliable and reinforces the importance of integrating both provision and maintenance in hostel planning and management.

4.3 Evaluation of the Presence and Effectiveness of Facilities in the Hostels

These objectives examined the presence and effectiveness of facilities within the selected hostels as perceived by residents. The analysis in Table 8 was based on data obtained from respondents and focused on key aspects of the hostel environment, including academic support, privacy, social interaction, comfort, safety, and overall wellbeing. Responses were measured using a five-point Likert scale and analysed using descriptive statistics, including Total Weighted Values (TWV), Average Weighted Values (AWV), and Mean Weighted Values (MWV), to determine the relative performance of each indicator against established benchmarks.

Table 8: Student Experience in Hostels with Facilities Available

S/N	Statement	SA	A	N	D	SD	TWV	AWV	MWV
1	The hostel supports my academic activities	110	140	45	25	13	999	3.00	3.00
2	The hostel provides adequate privacy	55	90	85	65	38	788	2.37	2.37
3	The hostel encourages social interaction among students	135	150	30	12	6	1134	3.41	3.41
4	The hostel is comfortable for living	95	160	55	15	8	1021	3.07	3.07
5	The hostel environment is safe and secure	150	120	40	15	8	1124	3.37	3.37
6	The hostel design supports student wellbeing	70	110	80	45	28	833	2.50	2.50

SA= Strongly Agree (5), A=Agree (4), N= Neutral (3), D= Disagree (2), SD = Strongly Disagree (1)

Source: Author's Field Survey (2026).

The findings in Table 8 indicated that students generally perceived hostel facilities as moderately effective. Social interaction (MWV = 3.41) and safety/security (MWV = 3.37) recorded the highest ratings, suggested that the hostel environment adequately supports communal living and provides a reasonable sense of security. Comfort and academic support also received moderate ratings, indicating satisfactory but improvable living and learning conditions.

However, privacy (MWV = 2.37) and design support for student well-being (MWV = 2.50) recorded low ratings, reflecting concerns about overcrowding, inadequate personal space, and insufficient recreational and relaxation facilities. Overall, the findings suggested that while the hostels perform well in promoting social interaction and safety, improvements are needed in privacy, comfort, and student-centred design to enhance students' overall residential experience.

4.4 Priorities Regarding Hostel Facilities in the Study Area

This section evaluated student satisfaction levels and priorities regarding hostel facilities using a combined analytical framework. The analysis integrated descriptive statistics (mean and standard deviation), cross-tabulated availability responses, and prioritisation rankings derived from students. This provided a comprehensive understanding of facility performance, variation in student perception, and improvement priorities based on responses from residents.

4.4.1 Respondents' Profile and Influence on Perception of Hostel Facilities

The socio-demographic characteristics of respondents provided important context for interpreting students' perceptions of hostel facilities. Factors such as gender, age, academic level, room occupancy, and duration of residence influenced students' experiences and expectations of the hostel environment. Students in crowded rooms and those who had stayed longer in the hostels generally reported lower satisfaction with facility conditions. Overall, respondents' perceptions reflected their residential experiences and should be interpreted within the context of these demographic characteristics.

Table 9: Socio-Economic Characteristics of Respondents (n = 333)

Variable	Category	Frequency	Percentage (%)
Gender	Male	158	47.0
	Female	178	53.0
Age	16–20	90	26.8
	21–25	83	24.7
	26–30	81	24.1
	Above 30	82	24.4
Level of Study	100 Level	66	19.6
	200 Level	67	19.9
	300 Level	68	20.2
	400 Level	63	18.8
	500 Level	72	21.4
Room Occupants	1	70	20.8
	2	99	29.5
	3	94	28.0
	4 or more	73	21.7
Duration in Hostel	Less than 1 year	64	19.0
	1–2 years	75	22.3
	3–4 years	107	31.8
	More than 4 years	90	26.8

Source: Author's Field Survey (2026)

The respondents' profile provided a foundational understanding of the study population and was essential for interpreting subsequent findings on student satisfaction and perception of hostel facilities. Socio-economic and residential characteristics influenced how students experience space, evaluate environmental quality, and prioritize facility needs within hostel environments. In built environment studies, these variables are critical because they shape spatial behavior, comfort expectations, and adaptation levels within shared residential systems.

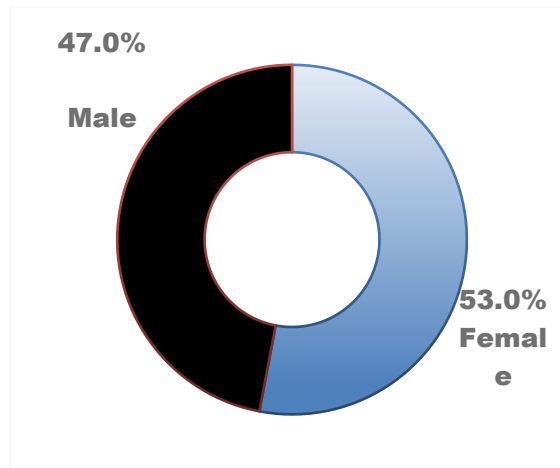


Figure 1: Gender Distribution of Respondents
Source: Author's Field Survey (2026)

Figure 1 showed that more female respondents of (53.0%) slightly outnumber male respondents of (47.0%). This relatively balanced distribution enhanced the reliability of the findings. However, gender differences were important in interpreting perception of hostel facilities, particularly regarding safety, privacy, and sanitation. Female students are generally more sensitive to environmental security and hygiene conditions, which may influence their evaluation of hostel facilities' adequacy.

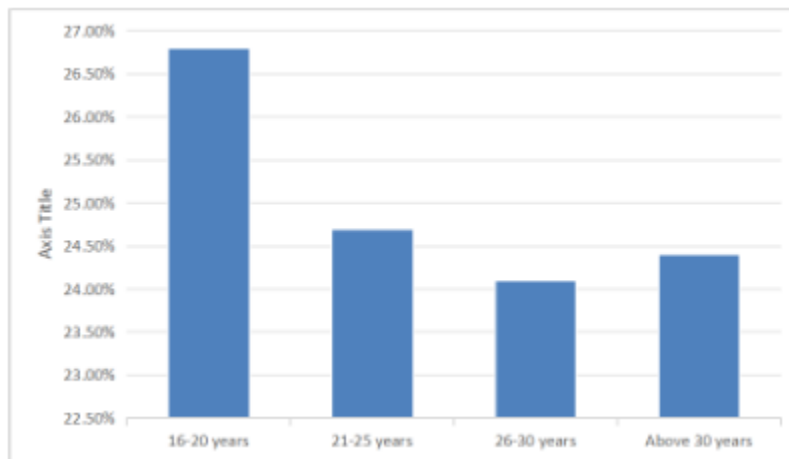


Figure 2: Age Distribution of Respondents
Source: Author's Field Survey (2026)

As illustrated in Figure 2, respondents are fairly evenly distributed across all age categories. This suggested a diverse mix of experience levels and adaptability to hostel living conditions. Younger students (16–20 years) are often more adaptable but less experienced, while older students tend to be more critical of spatial quality, comfort, and privacy. These differences directly influence how environmental comfort, study spaces, and design adequacy are perceived in later analysis sections.

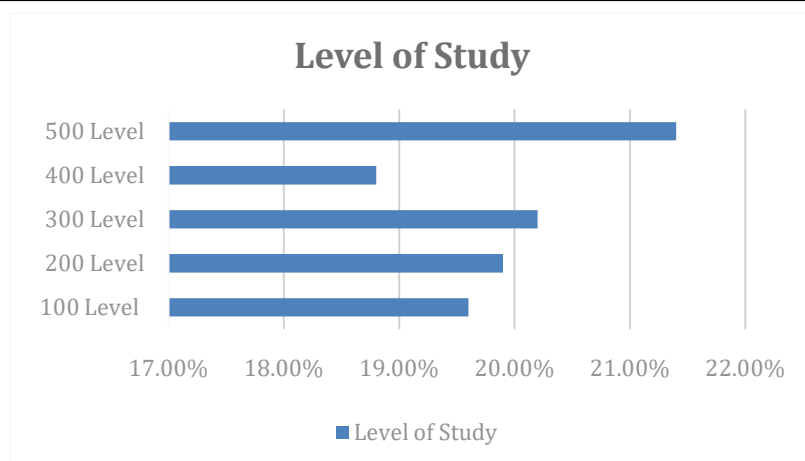


Figure 3: Level of Study Distribution
Source: Author's Field Survey (2026)

Figure 3 indicated a near-uniform distribution across academic levels, with 500-level students slightly higher (21.4%). Students at higher academic levels typically have greater exposure to hostel systems and are therefore more capable of critically assessing facility performance. Their responses often reflected long-term evaluation rather than initial impressions, which strengthens the validity of perception data

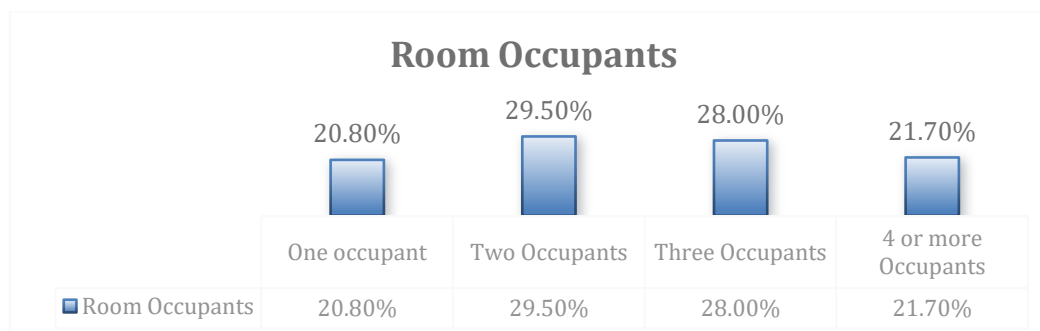


Figure 4: Room Occupancy Pattern
Source: Author's Field Survey (2026)

Figure 4 showed that most respondents live in shared rooms, with 2–3 occupants being the most common arrangement. This indicates a high level of spatial sharing, which directly affects privacy, ventilation, noise levels, and overall comfort. Higher occupancy levels are strongly associated with reduced satisfaction in environmental comfort indicators, which becomes evident in the perception analysis of hostel facilities. Table 9 further reveals that a significant proportion of respondents have stayed in hostels for more than 3 years. Students with longer residency experience are more likely to provide accurate assessments of recurring infrastructural issues such as water supply, electricity stability, and facility deterioration.

4.4.2 Respondents' Satisfaction Levels Based on Perception of Hostel Facilities

This section presented students' satisfaction with hostel facilities by combining satisfaction ratings and priority rankings. The analysis provided an overview of how students evaluate different academic, social, sanitary, and infrastructural facilities within the selected hostels. The findings helped identify well-performing facilities as well as areas requiring improvement, thereby highlighting priorities for enhancing the quality of student-centred hostel accommodation.

Table 10: Integrated Analysis of Students Satisfaction Levels in Order of Priority

S/N	Hostel Facility	Satisfied (%)	Not Satisfied (%)	Mean ($\bar{x}$)	SD	Priority Level
1	Reading / Study Room	29.4	42.6	2.70	1.10	Very High
2	Common Room	33.6	36.3	3.05	0.95	High
3	Kitchen / Cooking Area	22.8	56.8	2.40	1.25	Very High
4	Laundry / Washing Area	25.5	52.0	2.55	1.15	High
5	ICT Facility	19.2	60.4	2.10	1.35	Very High
6	Toilet Facilities	36.3	29.4	3.35	0.85	Very High
7	Bathroom / Shower	39.0	27.0	3.50	0.80	Very High
8	Waste Disposal Facilities	35.4	30.6	2.90	1.00	High
9	Security Post	43.5	24.6	4.10	0.60	Medium
10	Recreational Space	21.6	56.2	2.25	1.40	High
11	Steady Water Supply	32.7	31.2	3.80	0.70	Very High
12	Electricity Supply	45.6	21.3	4.20	0.65	Very High
13	Parking Space	26.4	46.2	1.45	1.50	Low
14	Outdoor Sitting Area	28.5	42.0	2.65	1.05	Medium

Source: Author's Field Survey (2026)

The findings in Table 10 revealed varying levels of student satisfaction with hostel facilities. Electricity supply, security, and water supply recorded the highest satisfaction levels, indicated that these essential services are generally reliable across the selected hostels. In contrast, ICT facilities, kitchen areas, recreational spaces, and parking facilities received the lowest ratings, reflecting inadequate provision and inconsistent availability.

The results further showed that facilities with lower satisfaction levels were ranked as the highest priorities for improvement. Students placed particular emphasis on ICT infrastructure, reading rooms, kitchen facilities, and sanitation services, highlighted their importance to academic performance and daily living. Overall, student satisfaction was largely influenced by the adequacy of essential infrastructure, with deficiencies in key support facilities indicated the need for targeted improvements in hostel design and management.

5.0 Conclusion

The study concludes that student-centred hostel facilities in selected universities in South-Western Nigeria were generally inadequate and unevenly distributed, with significant variation in both availability and functionality. The overall condition of hostel infrastructure was moderate but falls below acceptable standards in several critical areas, particularly those related to academic support and student wellbeing. The availability analysis revealed that most student-centred facilities were either partially available or completely absent, especially ICT facilities (19.2% availability), recreational spaces (21.6%), and kitchen facilities (22.8%). This indicates a clear gap between student needs and institutional provision.

The functional assessment showed that while core utilities such as electricity (MWV = 3.32) and water supply (MWV = 3.17) performed moderately well, several critical aspects such as maintenance culture (MWV = 2.23), overcrowding (MWV = 2.11), and noise control (MWV = 2.16) were poorly rated. This highlights systemic infrastructural and management challenges within the hostel system. The perception analysis revealed that students generally view hostel environments as moderately supportive of academic activities (MWV = 3.00) and social interaction (MWV = 3.41), but express dissatisfaction with privacy (MWV = 2.37) and design support for wellbeing (MWV = 2.50). This indicates that while hostels function at a basic level, they are not fully optimized for academic productivity and personal comfort.

The correlation analysis further confirmed a significant relationship ($r = 0.642$) between facility availability and functionality, indicating that improving provision without addressing maintenance and operational efficiency may not fully resolve existing challenges.

This study evaluated student-centered facilities in selected Southwestern Nigerian public university hostels, focusing on their availability, functionality, adequacy, and students' level of satisfaction. It also examined the relationship between the availability and functional condition of the facilities, identified major deficiencies and priority needs of students.

Finally, the study concludes that student priorities were strongly centered on essential infrastructure such as water supply, electricity, ICT facilities, sanitation, and academic support spaces, reflecting a demand-driven hierarchy of needs within hostel environments.

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