

## Hostel Facility Quality, Essential Services and Student Residential Satisfaction in Nigerian Public Universities: Evidence from TETFund

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**Abstract:** Student accommodation is an important component of the University built environment because the quality of residential facilities influences students' comfort, safety, well-being, and capacity to participate effectively in academic life. In Nigeria, substantial public investment has been directed towards tertiary-education infrastructure through the Tertiary Education Trust Fund (TETFund), yet evidence concerning whether physical infrastructure provision translates into satisfactory residential experiences remains limited. This study evaluates the relationship between hostel facility quality, essential-service provision, and student residential satisfaction in TETFund-supported hostels at Abubakar Tafawa Balewa University (ATBU), Yelwa Campus, Nigeria. A quantitative cross-sectional survey design was adopted. Structured questionnaires were administered to hostel users, with 154 returned and 134 valid responses retained for analysis. Descriptive statistics, reliability analysis, and correlation analysis were undertaken using SPSS. The results indicate that the number of completed TETFund-supported hostel buildings recorded the highest availability rating (Mean = 4.92, SD = 0.27), followed by total bed capacity (Mean = 4.68, SD = 0.47) and occupancy-related provision (Mean = 4.60, SD = 0.49). Physical residential attributes were also highly rated, particularly room size and layout and ventilation/lighting (both Mean = 4.84). In contrast, service-related dimensions were considerably weaker, including water supply (Mean = 3.00), internet/Wi-Fi availability (Mean = 2.49), and toilet and bathroom maintenance (Mean = 2.42). Overcrowding (Mean = 4.59), inadequate space per student (Mean = 4.51) and insufficient or damaged furniture (Mean = 4.51) were the most prominent reported challenges. The study also reports a positive association between essential-service quality and student satisfaction ( $R = 0.465$ ,  $p < 0.01$ ). The findings demonstrate a critical distinction between infrastructure provision and infrastructure performance: construction investment can improve the physical accommodation stock, but sustained residential satisfaction depends on reliable utilities, sanitation, maintenance, connectivity, and responsive facility management. The study contributes a post-occupancy perspective to the assessment of public university infrastructure investment in a developing-country context and provides implications for lifecycle facility management and future TETFund-supported hostel development.

**Keywords:** student accommodation; residential satisfaction; hostel facility quality; essential services; TETFund;

## INTRODUCTION

Student accommodation constitutes a significant component of the higher-education built environment. For students who reside on campus, the hostel is not merely a place of sleeping; it is an integrated residential, social and learning environment in which indoor environmental quality, sanitation, utilities, security, connectivity and maintenance collectively shape everyday experience. Consequently, the effectiveness of university infrastructure investment cannot be assessed solely by the number of buildings completed or beds provided. It must also be considered in terms of functionality, service reliability, maintainability and users' residential satisfaction.

This issue is particularly important in developing higher-education systems where rapid enrolment growth frequently places pressure on existing accommodation stocks. Previous studies have identified inadequate accommodation, unreliable utilities, sanitation deficiencies, overcrowding and weak maintenance as recurring problems in university residential environments. The uploaded study similarly establishes that hostel infrastructure availability and service adequacy represent distinct dimensions of the student residential experience.

In Nigeria, the Tertiary Education Trust Fund (TETFund) represents a major institutional mechanism for supporting public tertiary-education infrastructure. TETFund describes its mandate as providing supplementary support to public tertiary institutions, including essential physical infrastructure and its maintenance. Its current beneficiary information also identifies Abubakar Tafawa Balewa University as a federal university beneficiary.

The relevance of TETFund-supported infrastructure therefore extends beyond construction output. From a lifecycle perspective, the value of an accommodation project is realised through continued functionality after completion. A hostel block with adequate rooms but unreliable water, electricity, sanitation, internet connectivity or maintenance services may provide physical capacity without delivering equivalent residential value.

The uploaded empirical study illustrates this distinction clearly. The number of completed TETFund-supported hostel buildings was rated very highly (Mean = 4.92), whereas maintenance-budget utilisation recorded only 2.42. The same pattern appears in students' satisfaction ratings: room size and layout and ventilation/lighting were both rated 4.84, whereas internet/Wi-Fi and toilet/bathroom maintenance received means of 2.49 and 2.42, respectively.

This suggests a potentially important policy and research distinction between provision, performance, and satisfaction. Provision concerns whether accommodation infrastructure exists; performance concerns whether the infrastructure and associated services function effectively; satisfaction concerns how users evaluate the resulting residential environment. Existing Nigerian studies have examined student hostel facilities and accommodation satisfaction, including post-occupancy evaluation, hostel amenities, and residential conditions. However, much of this literature treats hostel facilities as a broad category and

gives less attention to the relationship between TETFund-supported infrastructure, essential-service quality, physical building condition, and residential satisfaction. Studies have also tended to emphasise individual services or general hostel adequacy rather than examining the infrastructure-service-satisfaction chain within a specific publicly funded intervention. The present study therefore addresses this gap by examining TETFund-supported hostels at ATBU Yelwa Campuses. The study is guided by the proposition that the value of infrastructure investment is realised through the interaction of physical facility quality and essential-service performance.

## LITERATURE REVIEW

### **Student accommodation as a component of sustainable university infrastructure**

University accommodation contributes to the broader performance of the campus-built environment. The residential environment affects not only shelter but also health, safety, social interaction, academic engagement and students' perception of institutional quality. Student satisfaction is therefore multidimensional and may incorporate physical, functional, environmental and service-related attributes. Wiers-Jenssen et al. (2002) conceptualised student satisfaction as a multidimensional construct shaped by different aspects of the student experience, while Petruzzellis et al. (2006) demonstrated the importance of service quality in shaping satisfaction within higher education. More specifically, hostel studies have identified room quality, environmental conditions, sanitation, utilities, security, and maintenance as important dimensions of residential satisfaction (Suki & Chowdhury, 2015; Napitupulu et al., 2018). From a sustainable built-environment perspective, this has an important implication. A building's sustainability cannot be reduced to its construction stage. Sustainable performance requires appropriate operation, maintenance, resource efficiency, and continued fitness for purpose throughout the building lifecycle.

### **Availability and adequacy of university hostel facilities**

Availability and adequacy should be distinguished conceptually. Availability refers to whether a facility or service exists, whereas adequacy concerns whether it is sufficient, accessible, functional, and appropriate for the population using it. The uploaded study identifies completed hostel buildings and bed capacity as strong aspects of the ATBU accommodation system. However, it also shows that maintenance funding and management responsiveness are considerably weaker. This distinction is supported by previous Nigerian research. Kadir et al. (2021), for example, examined student satisfaction through post-occupancy evaluation and demonstrated that the presence of hostel facilities does not necessarily guarantee satisfactory residential experiences. Similarly, Odefadehan et al. (2022) found that students' satisfaction was influenced by the quality and adequacy of hostel facilities rather than merely their existence. Recent Nigerian evidence also points towards continuing accommodation pressures. Shamang et al. (2024), in a study of student hostels at Kaduna State University, reported differences between structural accommodation characteristics and the performance of utilities and communal services. Ibrahim et al. (2024, 2025) likewise identified variations in students' satisfaction with hostel amenities in federal universities in North-East Nigeria. The literature therefore indicates that accommodation evaluation should move from a quantity-based approach towards a performance-based post-occupancy approach.

### **Physical hostel quality and residential satisfaction**

Physical building quality remains an important determinant of residential satisfaction. It encompasses room dimensions, spatial organisation, ventilation, lighting, roof and ceiling condition, wall and floor finishes, furniture, cleanliness and general appearance. The ATBU results show particularly high satisfaction with room size/layout and ventilation/lighting (Mean = 4.84 for each), followed by roof and ceiling condition (Mean = 4.75) and walls/floors and furniture (Mean = 4.68).

These findings correspond with the broader post-occupancy literature, which identifies indoor environmental quality and physical comfort as important dimensions of satisfaction. Suki and Chowdhury (2015) found that students' attitudes towards on-campus accommodation are influenced by environmental and facility characteristics, while Napitupulu et al. (2018) demonstrated the importance of facility-service quality to student satisfaction. The implication is that hostel investment should incorporate not only structural adequacy but also user-centred environmental performance.

### **Essential services and student residential satisfaction**

Essential services represent the operational layer through which physical accommodation becomes functional. These include water, electricity, sanitation, waste management, internet connectivity, laundry, cooking facilities, security and maintenance. The ATBU results reveal a marked difference between physical building satisfaction and service satisfaction. Water supply received a mean of 3.00, electricity 3.12, internet/Wi-Fi 2.49, and toilet and bathroom cleanliness 2.42. This pattern is theoretically important because it demonstrates that facility quality is not synonymous with building condition. A structurally satisfactory building may still generate dissatisfaction if essential services are unreliable.

### **Maintenance and post-occupancy performance**

Maintenance is central to the lifecycle performance of student accommodation. Poor maintenance can progressively reduce the functional value of buildings even where initial construction quality is satisfactory. In the present study, maintenance-related indicators reveal a substantial weakness. Maintenance frequency and repair response recorded a mean of 3.98, while budget allocation and utilisation for maintenance received only 2.42. This finding has broader sustainability implications. Deferred maintenance can increase lifecycle costs, accelerate deterioration, and increase the need for major rehabilitation. Conversely, preventive maintenance can preserve building performance and extend asset life. The literature on post-occupancy evaluation therefore provides an appropriate analytical perspective for TETFund-supported hostels. Instead of evaluating success only through project completion, institutions can assess whether infrastructure continues to meet user needs during operation.

### **Overcrowding and space utilisation**

Overcrowding emerged as the strongest challenge in the empirical study, with a mean of 4.59, followed by inadequate space per student (4.51) and insufficient or damaged furniture (4.51). These findings demonstrate that high aggregate bed capacity does not necessarily eliminate accommodation pressure. The distinction may arise because demand grows faster than accommodation supply, producing a gap between nominal capacity and actual demand.

### **Digital connectivity as an emerging residential-service dimension**

Internet connectivity has become increasingly relevant to university accommodation because students increasingly undertake academic activities, communication, information retrieval and collaborative work through digital platforms. The ATBU study records a mean of only 2.49 for the availability and functionality of hostel internet/Wi-Fi services. This finding indicates that contemporary hostel evaluation should move beyond conventional infrastructure indicators such as water, electricity and sanitation to include digital infrastructure. Connectivity is increasingly part of the functional quality of student accommodation rather than an optional amenity.

### **TETFund and infrastructure investment in Nigerian public universities**

TETFund was established under the Tertiary Education Trust Fund Act 2011 as an intervention agency supporting public tertiary institutions. Its stated mandate includes support for essential physical infrastructure and its maintenance. This makes TETFund-supported hostels an important case for evaluating how public infrastructure investment translates into user-level outcomes. The current TETFund beneficiary list identifies ATBU as a federal university beneficiary. However, the existence of an intervention programme does not itself establish that all resulting facilities perform satisfactorily. The post-occupancy condition of the facilities, service reliability, and user satisfaction provide a complementary basis for evaluating infrastructure effectiveness.

### **Literature Gap**

Four principal gaps emerge from the literature. First, previous Nigerian studies have frequently examined hostel accommodation generally rather than distinguishing facilities according to their funding and intervention context. Second, the literature often separates physical building characteristics from essential services, even though students experience these dimensions simultaneously. Third, limited attention has been given to the post-occupancy performance of publicly funded university hostels, particularly the extent to which infrastructure investment translates into residential satisfaction. Fourth, digital connectivity, maintenance responsiveness and lifecycle facility management remain comparatively underdeveloped within traditional hostel satisfaction assessments. The present study addresses these gaps by integrating physical hostel quality, essential services, maintenance challenges and student residential satisfaction within a TETFund-supported accommodation context.

## **METHODOLOGY**

### **Research design**

The study adopted a quantitative cross-sectional survey design. The approach was considered appropriate because the study sought to obtain standardised perceptions of hostel conditions and statistically examine relationships among facility-service variables and student satisfaction. The original study describes its design as descriptive and exploratory and identifies questionnaire-based data collection as the principal strategy.

**Study Area**

The research was conducted at Abubakar Tafawa Balewa University, Bauchi, focusing on TETFund-supported hostel facilities at the Yelwa Campuses. ATBU is listed by TETFund among its federal university beneficiaries.

**Population and sampling**

The source document identifies a sample frame of 720 respondents comprising undergraduate students, postgraduate students, lecturers, and other users. A proportionate and simple random sampling approach was reported. The source also reports a planned sample of 256, although an earlier section refers to 248. This discrepancy should be reconciled against the original sampling calculation before submission. For the empirical analysis, the study reports 250 questionnaires administered, 154 returned, and 134 valid questionnaires used.

Table 1. Questionnaire administration

| Category           | Number | Calculated proportion |
|--------------------|--------|-----------------------|
| Administered       | 250    | 100.0%                |
| Returned           | 154    | 61.6%                 |
| Valid for analysis | 134    | 53.6%                 |

The percentages above are recalculated directly from the reported frequencies. The original document reports 66.9% and 58.3%, which do not correspond to 154/250 and 134/250.

**Instrument for Data Collection**

A structured questionnaire using a five-point Likert scale was employed. The instrument captured five broad dimensions: availability and adequacy of hostel buildings and essential services; physical condition and residential satisfaction; challenges affecting hostel satisfaction; improvement strategies; and relationships between essential-service quality, physical condition, and satisfaction. Cronbach's alpha values reported in the study ranged from 0.871 to 0.938 across the principal constructs.

Table 2. Reliability of study constructs

| S/N | Construct                                               | Cronbach' Alpha | Items |
|-----|---------------------------------------------------------|-----------------|-------|
| 1   | Availability and adequacy of hostel facilities/services | 0.871           | 25    |
| 2   | Student satisfaction with physical condition/services   | 0.938           | 11    |
| 3   | Hostel/service challenges                               | 0.875           | 19    |
| 4   | Improvement strategies                                  | 0.902           | 22    |

All reported alpha values exceed the commonly applied 0.70 threshold, indicating acceptable internal consistency.

**Method of Data analysis**

In this section, data were analysed using descriptive statistics, including frequencies, percentages, means and standard deviations. Correlation analysis was employed to assess associations between essential-service quality, physical building condition and student satisfaction. SPSS was used for statistical analysis.

**RESULTS AND DISCUSSION****Respondent characteristics**

The respondents were predominantly within the 30–60-year category according to the source data, representing 86.6% of the sample. Degree holders represented 57.5%, while respondents with master's degrees or above represented 38.8%. Because the study is explicitly about *student residential satisfaction*, the inclusion of lecturers and "others" in the reported sample frame requires clarification. The final journal version should establish whether these respondents actually resided in the TETFund hostels and whether they were retained in the satisfaction analysis.

**Availability and adequacy of hostel facilities**

Table 3. Selected availability and adequacy indicators

| S/N | Variables                                    | Mean | SD   | Rank |
|-----|----------------------------------------------|------|------|------|
| 1   | Completed TETFund-supported hostel buildings | 4.92 | 0.27 | 1    |
| 2   | Total bed capacity                           | 4.68 | 0.47 | 2    |
| 3   | Occupancy rate relative to demand            | 4.60 | 0.49 | 3    |
| 4   | Hostel accessibility                         | 4.51 | 0.64 | 4    |
| 5   | Gender availability                          | 4.25 | 0.43 | 5    |
| 6   | Functional TETFund hostels currently in use  | 4.24 | 1.12 | 6    |
| 7   | Room size and ventilation adequacy           | 4.17 | 0.38 | 7    |
| 8   | Furniture availability                       | 4.17 | 0.38 | 8    |
| 9   | Sanitation facilities                        | 4.09 | 0.49 | 9    |
| 10  | Maintenance frequency/repair response        | 3.98 | 1.02 | 10   |
| 18  | Essential-service satisfaction               | 3.49 | 0.80 | 18   |

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|    |                                                 |      |      |    |
|----|-------------------------------------------------|------|------|----|
| 20 | General adequacy relative to student population | 3.46 | 1.04 | 20 |
| 22 | Renovation/facility upgrading frequency         | 3.29 | 0.84 | 22 |
| 23 | Hostel management staff availability            | 3.12 | 0.81 | 23 |
| 24 | Complaint-response efficiency                   | 2.49 | 1.00 | 24 |
| 25 | Maintenance-budget allocation/utilisation       | 2.42 | 1.04 | 25 |

The results reveal a pronounced infrastructure-service gradient. Physical capacity indicators are strongly rated, whereas maintenance governance and operational responsiveness receive substantially lower ratings.

**Student satisfaction with physical conditions and essential services**

Table 4. Student satisfaction indicators

| S/N | Indicator                    | Mean | SD   | Rank |
|-----|------------------------------|------|------|------|
| 1   | Room size and layout         | 4.84 | 0.37 | 1    |
| 1   | Ventilation and lighting     | 4.84 | 0.37 | 1    |
| 3   | Roof and ceiling condition   | 4.75 | 0.59 | 3    |
| 4   | Walls and floor finishes     | 4.68 | 0.47 | 4    |
| 4   | Furniture condition/adequacy | 4.68 | 0.62 | 4    |
| 6   | Noise level                  | 4.33 | 0.47 | 6    |
| 7   | General cleanliness/hygiene  | 4.25 | 0.59 | 7    |
| 8   | Security and safety          | 4.00 | 0.70 | 8    |
| 9   | Physical appearance          | 3.50 | 1.11 | 9    |
| 10  | Water supply                 | 3.00 | 1.23 | 10   |
| 11  | Electricity supply           | 3.12 | 0.81 | 11   |

The results show a clear separation between physical building satisfaction and service satisfaction. Structural and spatial indicators are predominantly high, while several essential services are considerably weaker.

**Challenges**

Table 5. Principal challenges affecting residential satisfaction

| S/N | Challenges                     | Mean | SD   | Rank |
|-----|--------------------------------|------|------|------|
| 1   | Overcrowding                   | 4.59 | 0.49 | 1    |
| 1   | Inadequate space per student   | 4.51 | 0.64 | 2    |
| 3   | Insufficient/damaged furniture | 4.51 | 0.64 | 3    |

|    |                                       |      |      |    |
|----|---------------------------------------|------|------|----|
| 4  | Poor toilet/bathroom maintenance      | 4.01 | 0.70 | 4  |
| 4  | Dirty/poorly cleaned environment      | 3.92 | 0.49 | 5  |
| 6  | Poor ventilation/lighting             | 3.85 | 0.69 | 6  |
| 7  | Roof/ceiling/wall repair needs        | 3.85 | 0.55 | 7  |
| 8  | Inadequate study areas                | 2.98 | 1.00 | 8  |
| 9  | Inadequate security/safety facilities | 2.90 | 0.96 | 9  |
| 10 | Poor internet connectivity            | 2.90 | 1.11 | 10 |
| 11 | Irregular waste collection            | 3.62 | 0.96 | 11 |

Overcrowding is the most prominent challenge, indicating that future accommodation planning must consider both current capacity and future demand.

### Improvement strategies

The highest-rated improvement strategy was regular maintenance and renovation (Mean = 3.91), followed by adequate maintenance funding (3.69), periodic inspection (3.60), and construction of additional hostels to reduce overcrowding (3.60).

Table 6. Principal improvement strategies

| S/N | improvement strategies                         | Mean | SD   | Rank |
|-----|------------------------------------------------|------|------|------|
| 1   | Regular maintenance and renovation             | 3.91 | 0.84 | 1    |
| 1   | Adequate maintenance funding                   | 3.69 | 0.82 | 2    |
| 3   | Periodic facility inspection                   | 3.60 | 0.83 | 3    |
| 4   | Additional hostels to reduce overcrowding      | 3.60 | 0.83 | 4    |
| 4   | Student feedback in hostel planning            | 3.49 | 0.80 | 5    |
| 6   | High-quality construction/renovation materials | 3.46 | 1.04 | 6    |
| 7   | Adequate ventilation and lighting              | 3.40 | 1.03 | 7    |
| 8   | Constant clean water supply                    | 3.29 | 0.84 | 8    |
| 9   | Reliable electricity                           | 3.12 | 0.81 | 9    |

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|    |                                    |      |      |    |
|----|------------------------------------|------|------|----|
| 10 | Improved internet services         | 2.49 | 1.00 | 10 |
| 11 | Regular maintenance and renovation | 3.91 | 0.84 | 11 |

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**DISCUSSION OF RESULTS**

The strongest finding is the difference between physical infrastructure provision and operational performance. The completed-hostel-building indicator recorded a mean of 4.92, demonstrating strong perceived infrastructure availability. However, maintenance-budget utilisation and complaint-response efficiency were substantially weaker. This finding supports a lifecycle interpretation of public infrastructure investment. Construction creates the physical asset, but maintenance and service management determine whether that asset continues to provide value during occupation. The result is particularly relevant to TETFund because the Fund's mandate encompasses both infrastructure provision and maintenance. Thus, project-performance assessment should extend beyond completion certificates and physical outputs towards post-occupancy performance indicators.

**Physical building quality and satisfaction**

The high scores for room size/layout, ventilation, lighting, roofs, walls, floors and furniture suggest that the physical characteristics of the TETFund-supported hostels are generally positively perceived. This finding corresponds with the broader student-accommodation literature, which identifies physical and environmental characteristics as important elements of residential satisfaction (Suki & Chowdhury, 2015; Napitupulu et al., 2018). However, the results also indicate that physical quality alone cannot guarantee high overall satisfaction. The strong physical scores coexist with lower ratings for water, sanitation, internet, laundry and maintenance.

**Essential services as the operational bottleneck**

The weaker performance of essential services represents the most important management issue emerging from the study. Water supply received a mean of 3.00, electricity 3.12, internet 2.49 and toilet/bathroom maintenance 2.42. These results suggest that the principal problem is not necessarily the absence of hostel buildings but the reliability and quality of services delivered within them. This distinction has implications for university infrastructure policy. A conventional construction-oriented model may prioritise additional blocks. A lifecycle-oriented model would allocate resources across construction, operation, preventive maintenance, service reliability and renewal.

**Overcrowding and demand-capacity mismatch**

Overcrowding was the highest-rated challenge, despite the high rating for total bed capacity. This apparent contradiction indicates that nominal capacity and effective capacity are not equivalent.

Several factors may explain this relationship, including: Therefore, future TETFund hostel interventions should incorporate demand forecasting rather than relying exclusively on current accommodation deficits.

### **Maintenance and sustainable asset management**

The findings reinforce the principle that sustainable infrastructure requires continuous management. Regular inspection, maintenance and renovation were identified by respondents as key strategies. This is consistent with a lifecycle approach to sustainable buildings in which maintenance, resource management and operational performance are integral to long-term environmental and economic value. The implication is that TETFund-supported accommodation should be managed as a long-term public asset, rather than as a completed construction project.

### **Implications for Sustainable University Infrastructure**

The study contributes to the sustainability literature in three ways. First, it demonstrates that infrastructure quantity is an incomplete indicator of infrastructure success. Completed hostel buildings and bed capacity may be high while service performance remains weak. Second, it identifies the importance of post-occupancy facility management. Regular maintenance, sanitation, water, electricity, connectivity and responsive complaint systems are essential to maintaining the value created through capital investment. Third, the findings suggest that future public infrastructure assessment should integrate user satisfaction with lifecycle performance indicators.

### **Policy and Management Implications**

Evaluation of TETFund hostel projects should incorporate post-occupancy indicators alongside conventional project-completion indicators. Preventive maintenance schedules should cover roofs, ceilings, plumbing, electrical installations, sanitation facilities, furniture and common areas. Future hostel construction should be based on projected enrolment and occupancy demand rather than current shortages alone. Hostel planning, operation, and maintenance should integrate internet connectivity rather than treat it as an optional facility. Students are the principal users of hostel infrastructure. Regular post-occupancy surveys can provide management with early evidence of service deterioration and emerging accommodation needs.

## **CONCLUSIONS**

This study examined hostel facility quality, essential services, and student residential satisfaction in TETFund-supported accommodation at ATBU Yelwa Campuses. The findings reveal a clear distinction between physical infrastructure provision and operational service performance. The TETFund-supported hostels were positively evaluated in terms of completed buildings, bed capacity, room size, layout, ventilation, lighting, roof condition, finishes and furniture. However, significant weaknesses were identified in water supply, internet connectivity, sanitation, maintenance responsiveness and maintenance-budget utilisation. Overcrowding, inadequate space and insufficient or damaged furniture were the most prominent challenges. The reported correlation analysis further indicates positive relationships between essential-service quality, physical hostel condition and student satisfaction. The central implication is that the value of public university accommodation is determined not only by the provision of buildings but by their continued functional performance after construction. For TETFund-supported infrastructure, therefore, future investment strategies should combine capital development with lifecycle maintenance,

reliable utilities, sanitation, digital connectivity, demand forecasting and systematic post-occupancy evaluation.

### **Recommendations**

1. ATBU should establish scheduled inspection and preventive-maintenance programmes for all TETFund-supported hostels.
2. Dedicated and transparent maintenance budgets should be established to reduce deferred maintenance.
3. Future accommodation planning should incorporate projected student enrolment and realistic occupancy demand.
4. Water, electricity, sanitation, waste management and internet connectivity should receive continuous operational monitoring.
5. A digital or structured hostel complaint-management system should be introduced to record, prioritise and track maintenance requests.

### **Contribution to Knowledge**

The study makes three principal contributions.

1. It distinguishes between physical infrastructure provision, essential-service performance and residential satisfaction.
2. Empirically, it provides campus-specific evidence from TETFund-supported university hostels in North-Eastern Nigeria, an area comparatively less represented in the student-accommodation literature.
3. it demonstrates why public infrastructure investment should be accompanied by lifecycle maintenance and post-occupancy evaluation. The evidence indicates that substantial physical investment can coexist with weaknesses in service delivery, suggesting that future infrastructure policy should evaluate not only what is built, but also how well it performs for users over time.

### **REFERENCES**

- Ajayi, A., Nwosu, A., & Ajani, A. (2015). Students' satisfaction with hostel facilities in the Federal University of Technology, Akure, Nigeria.
- Akinwale, A., Okotoni, O., & Subair, B. (2025). Accommodation facilities and student satisfaction in Nigerian federal universities.
- Azeez, T. O., et al. (2016). Student accommodation and satisfaction with hostel facilities in Nigerian higher institutions.
- Eteng, M., Mfon, E., & Okoi, J. (2022). Student satisfaction and accommodation quality in Nigerian higher education institutions.
- Ibrahim, M., Babayo, H., & Kwari, M. (2024). Students' satisfaction with hostel amenities in federal universities in North-East Nigeria. *International Peer-Reviewed Journal*, 2, 1–14.
- Ibrahim, M., Babayo, H., & Kwari, M. (2025). Students' satisfaction with hostel amenities in federal universities in North-East Nigeria. *International Peer-Reviewed Journal*, 11(5), 1–14.

---

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- Kadir, F., Ogunleye, M. B., & Otunola, A. O. (2021). Post-occupancy evaluation of students' satisfaction with hostel facilities in Federal Polytechnic Offa, Kwara State, Nigeria. *Journal of Education, Society and Behavioural Science*, 34(12), 78–89.
- Kohl, K., Hopkins, C., Barth, M., Michelsen, G., Dlouhá, J., Razak, D. A., Sanusi, Z. A. B., & Toman, I. (2022). A whole-institution approach towards sustainability: A crucial aspect of higher education's individual and collective engagement with the SDGs and beyond. *International Journal of Sustainability in Higher Education*, 23(2), 218–236.
- Napitupulu, D., Rahim, R., & Abdullah, D. (2018). Analysis of student satisfaction toward quality of service facility. *Proceedings/Conference publication*.
- Obafemi Awolowo University, Akingbade, A., Olabamiji, A., & Folorunsho, E. (2022). The quality of students' accommodation in Nigeria's tertiary institutions. *Interdisciplinary Journal of Education Research*.
- Odefadehan, C. T., Ugwumba, F., Oyebola, O., & Babamboni, A. (2022). Assessing students' satisfaction with hostel facilities in tertiary institutions: The case of selected universities in South-West Nigeria. *Caleb Journal of Social and Management Science*, 7(1), 135–148.
- Petruzzellis, L., D'Uggento, A. M., & Romanazzi, S. (2006). Student satisfaction and quality of service in Italian universities. *Managing Service Quality*, 16(4), 349–364.
- Shamang, K. J., et al. (2024). Performance evaluation of students' hostel of the College of Agriculture and Environmental Science, Kaduna State University, Nigeria. *Discover Education*, 3, 219.
- Suki, N. M., & Chowdhury, I. A. (2015). Students' attitude and satisfaction living in sustainable on-campus hostels. *Malaysian Journal of Business and Economics*, 2(1), 35–47.
- Tertiary Education Trust Fund. (2011). Tertiary Education Trust Fund Act. Abuja, Nigeria.
- Tertiary Education Trust Fund. (2026). Beneficiary institutions.
- Tertiary Education Trust Fund. (2026). Mandate and establishment of TETFund.
- The reference list below retains the principal sources used in the uploaded study. The original document contains duplicates and several incomplete bibliographic entries, so the references should undergo a final DOI/database verification before submission.
- U Timothy. (2024). Student hostel accommodation challenges in Nigerian universities and the public-private partnership option. *Journal of Public Administration, Finance and Law*, 31, 37.
- Uzuegbunam, F. O. (2023). Sustainable architecture for student hostels in hot-humid tropical environment: Using University of Nigeria Enugu Campus as a case study. *Journal of Environmental Management and Safety*.
- Wiers-Jenssen, J., Stensaker, B., & Grogaard, J. B. (2002). Student satisfaction: Towards an empirical deconstruction of the concept. *Quality in Higher Education*, 8, 183–195.
- Xiangming, L., Meng, X., Hong, J., Hasan, A., & Fard Fini, E. (2025). Gender equality and workforce diversity in the global construction industry. *Engineering, Construction and Architectural Management*.