Assessment of Accessibility and Disability Compliance for Physically Challenged Students in Post-Graduate Hostel in Southwest University Nigeria

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Abstract

Most *universities in Nigeria are deficient in meeting the accessibility and disability compliance (ADC) requirements for physically challenged students in postgraduate hostels (PGHs), which are central to the academic and social well-being of postgraduate students. This study assessed the ADC of PGHs for physically challenged students in selected universities in Southwest Nigeria to develop design guidelines for a disability-inclusive postgraduate hostel in Nigeria. A multistage sampling technique was employed to systematically select universities, PGHs, and respondents for the assessment. Respondents were randomly selected from among postgraduate students. A set of 406 questionnaires was distributed to hostel users, with 334 retrieved questionnaires representing 82.3%. The results were analysed using descriptive and inferential statistics. The results show that shared rooms (35.9%) are the predominant type of accommodation. The results show that 55.6% of respondents reside in far-reach hostels, which are over a 10-minute walk from their departments. Results of the assessment of ADC in PGHs show that the overall mean weighted value (MWV) of 2.54 indicated a low level of ADC provision in PGHs. Overall MWV of 2.68 indicates low perceived accessibility in PGHs, with respondents disagreeing on adequate accessible, safe, and inclusive residential environment. Results showed significant correlations between users' perceptions of accessibility, inclusivity, and socioeconomic factors ($p<0.01$). Results perceived accessibility challenges as multidimensional, with policy implementation, funding, and social attitudes exerting greater influence than physical design deficiencies. Consequently, improving disability compliance in PGHs requires stronger policy enforcement, continuous staff training, adequate funding, institutional commitment, and sustained investment in accessible infrastructure.*

Keywords: Accessibility, Disability Compliance, Postgraduate Hostel, Nigeria

1.0 Introduction

Universities remain one of the most critical institutions in societies' social, intellectual, and economic development. Their mandate extends beyond teaching and research into shaping culture, values, and human capacity (Subair and Adeniyi, 2021). Over the past decades, universities in Nigeria have witnessed exponential growth in student enrolment, largely driven by population expansion and the rising demand for higher education (Subair, 2008). However, this unprecedented expansion has not been matched with proportional growth in infrastructure and support services, especially in student accommodation. The result has been a widening gap between the demand and supply of adequate hostel facilities, leaving many students in precarious living conditions both within and outside campuses (Ajayi and Ayodele, 2001). The university hostel is not merely a place of residence; it constitutes a central part of the educational ecosystem. It provides students with an environment where academic and

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social lives intersect, peer learning thrives, and values of discipline, order, and cooperation are gained (Igbal *et al.,* 2024). Scholars have observed that students residing in hostels often develop a sense of community and friendship, benefit from peer mentorship, and are better positioned to focus on their academic responsibilities compared to those living far from campus (Subair and Adeniyi, 2021). For postgraduate students, who often juggle demanding research schedules, extended study hours, and sometimes family responsibilities, the availability of well-designed, safe, and conducive hostel accommodation is not only a convenience but also an essential condition for academic productivity, health, and overall well-being (McCormack, 2009).

Despite this critical role, hostel accommodation in Nigeria is often plagued by shortages, overcrowding, and infrastructural deficiencies (Timothy, 2024). The situation becomes even more problematic when considered through the lens of ADC, as defined in international and national frameworks, which refers to the ability of persons with disabilities to obtain and use information, services, and facilities on an equal basis with others, without barriers, and with substantial ease of use (Adams *et al.,* 2018). In architectural and planning terms, accessibility extends beyond entry into buildings; it includes circulation within the facility, access to sanitary spaces, provision of wayfinding systems, and integration of assistive features that make the environment inclusive and usable for all (Makinde, 2012; Olusola, 2020b). Therefore, PGHs must meet these requirements to be functional, ensuring that physically challenged students, particularly those with mobility impairments, are able to navigate and inhabit the space safely and comfortably (Nasir *et. al.,* 2024). ADC in higher education facilities remains a pressing global concern, particularly in Nigeria, where structural, policy, and implementation gaps persist (Subair and Adeniyi, 2021; Adedoyin *et. al.,* 2024). Although legislation such as the 2018 Discrimination Against Persons with Disabilities (Prohibition) Act, 2018 and the establishment of the National Commission for Persons with Disabilities (NCPWD), 2023 mandate the inclusion of accessible features in public infrastructure, most universities in Nigeria still fall short of meeting these requirements (Premium Times, 2024; Ripples Nigeria, 2024). PGHs, which are central to the academic and social well-being of postgraduate students, are rarely prioritized in accessibility studies. Much of the existing research has focused on classrooms, libraries, and lecture theaters, leaving a critical knowledge gap regarding the accessibility of residential facilities (HumAngle, 2024; Edugist, 2024). This neglect undermines the rights of postgraduate students with disabilities, who require not only accessible academic spaces but also inclusive living environments that support independent study, research productivity, and social interaction.

Nigeria has a relatively strong legal framework for accessibility, although its implementation lags. Nigeria is a signatory to the United Nations Convention on the Rights of Persons with Disabilities (CRPD), which obligates states to guarantee equal access to the built environment, transportation, and higher education, including student housing (Udoakpan, 2022). Ratification of the CRPD and its Optional Protocol committed Nigeria to progressively realize accessibility and non-discrimination in the public domain. Domestically, this was reinforced by the 2018 Discrimination Against Persons with Disabilities (Prohibition) Act of 2018, which mandates ramps, lifts, and accessible sanitary facilities in all public buildings and prescribes penalties for non-compliance (Premium Times, 2024; Ripples Nigeria, 2024). The NCPWD was established to monitor compliance across public and private institutions (Hall, *et. al.,* 2018). In 2023, the NCPWD issued the Accessibility Regulations, which provided technical specifications for ramps, door widths, signage, lifts, and emergency systems. These guidelines are based on the Nigerian Building Code (NBC) and align with international standards, such as ISO 21542:2011, which covers accessible entrances, circulation routes, sanitary facilities, and emergency egress. These frameworks establish a solid foundation for ADC in Nigerian universities.

However, significant gaps persist between policy and practice. Many Nigerian universities either lack ramps or construct them with unusable gradients; multi-storey hostel blocks often have no lifts; corridors and doors remain narrow; and sanitary facilities are rarely adapted (Ogunyemi *et al., 2018).* Reports have documented unsafe and exclusionary conditions. For example, visually impaired students at the University of Nigeria, Nsukka, were endangered by poor hostel conditions (HumAngle, 2024), while physically challenged students in Osun and Oyo States still recount being carried into hostels due to inaccessible entrances (Ripples Nigeria, 2024). These cases highlight the disconnect between Nigeria's legislative commitments and the daily realities of students with disabilities. The consequences are particularly significant for postgraduate students. Unlike undergraduates, they require hostels that support extended study, independent research, and quieter living arrangements (Igbal *et. al.,* 2024). The absence of accessible design undermines not only comfort but also full participation in academic life. Since

postgraduate education is expected to produce advanced skills, leadership, and research capacity, exclusion in areas as basic as housing threatens both inclusive education and national development goals. Despite its importance, research on the accessibility of postgraduate hostels in Nigeria remains scarce. Most studies have examined classrooms, lecture theatres, or general campus infrastructure, whereas few studies have examined postgraduate hostels. This lack of systematic assessment makes evaluating compliance with the Disability Act (2018), the NCPWD Accessibility Regulations, or the Nigerian Building Code difficult, and universities are prevented from benchmarking their facilities against best practice. Without interventions, exclusionary infrastructure will persist, undermining equity and the law's spirit.

2.0 Literature Review

In recent years, ADC in higher education facilities has gained increasing global attention (Burgstahler, 2015; Altbach, 2016). However, Nigerian universities continue to struggle with effective implementation (Madu and Igbokwe, 2019; Oni and Adebayo, 2020). Understanding the socio-economic characteristics of postgraduate hostel users is critical, as age, marital status, income level, and disability status shape their accommodation needs (Subair and Adeniyi, 2021). However, most studies in Nigeria have concentrated on the general shortage of student housing, with little attention paid to the diversity of postgraduate users. This neglect limits the ability of planners to tailor hostel facilities to meet the varied needs of students, particularly those with disabilities, who may require specific design features to ensure equal participation in academic and social life (Ijadunola *et al., 2018;* Famolu, 2023).

Despite the enactment of the *2018 Discrimination Against Persons with Disabilities (Prohibition) Act, 2018* and the issuance of the NCPWD Accessibility Regulations in 2023, the accessibility of PGHs remains largely undocumented (Federal Republic of Nigeria, 2018; NCPWD, 2023). The law requires that public buildings incorporate ramps, lifts, accessible sanitary facilities, and other inclusive features (Adams, Halaychik, & Mezick, 2018). International benchmarks, such as ISO 21542:2011 and provisions of the Nigerian Building Code (2006) also set clear standards (International Organization for Standardization, 2011; National Building Code of Nigeria, 2006). However, evidence shows that many university buildings either lack these features or fall short in execution. For instance, ramps are often constructed at improper gradients, multi-storey hostel blocks lack elevators, and sanitary facilities are poorly adapted (Edugist, 2024; Agada, Guobadia, and Ojo, 2024). Unfortunately, most existing research has concentrated on classrooms and general infrastructure (DINABI, 2022; Usman, 2021), with PGHs almost entirely overlooked.

Beyond physical audits, the lived experiences and perceptions of students, particularly those with disabilities, should be considered. While some accessibility features may exist, their usability in practice is often compromised (Moriña, *et. al.,* 2017). At the University of Ibadan, students with visual impairment reported difficulties with broken elevators and blocked circulation spaces (IndyPress, 2023; Edugist, 2024). In Osun State, students with mobility impairments still rely on their peers to carry them into hostels due to inaccessible entrances (Qualitative Magazine, 2023; HumAngle, 2025). Research in other African contexts, such as South Africa and Ghana, similarly documents persistent barriers despite policy commitments (Dzansi and Amedzo, 2014; Mutanga, 2017). However, most of these insights come from undergraduate experiences, while the perspectives of postgraduate students who require quieter, research-friendly, and specialized accommodations remain largely absent in the literature (Kamugisha, 2023; McCormack, 2009).

The persistence of barriers points to systemic challenges beyond infrastructure (Lawal, 2025). Weak enforcement of laws, poor funding, limited awareness, and low prioritization of disability compliance in institutional budgets consistently undermine progress (Chiwandire and Vincent, 2019; Madu and Igbokwe, 2019). According to Makinde et *al.* (2024), fewer than 25% of public buildings in Nigeria meet accessibility standards, even after the 2018 Act's five-year compliance window expired in 2024 (Premium Times, 2024; PWD Spotlight, 2025). Universities often cite competing infrastructural needs and insufficient resources as reasons for non-compliance (HumAngle, 2024; Ede and Ugwu, 2025). However, no systematic exploration of how these institutional and policy challenges specifically affect the design, management, and maintenance of PGHs has been conducted, leaving a critical gap in evidence.

Finally, while many studies have diagnosed accessibility failures, few have translated findings into actionable design strategies (Palomino *et al. al.,* 2025). In particular, little to no literature proposes context-specific solutions for PGHs informed by both user needs and technical standards. The absence of such models means that universities lack clear guidance on how to retrofit existing hostels or design new ones that comply with the *Disability Act (2018)*, the *NCPWD Accessibility Regulations (2023)*, and global benchmarks like ISO 21542. Consequently,

postgraduate students with disabilities remain marginalized in housing provision, undermining Nigeria's commitment to inclusive education under SDG 4 and reducing inequalities under SDG 10 (United Nations, 2015; Useh, 2021).

From the global to the Nigerian context, one pattern is consistent: laws and policies exist, but their implementation in student housing is weak. While international literature documents the benefits of accessible campuses in enhancing retention, academic performance, and social integration (Burgstahler, and Cory 2010, Moriña, 2017; Olusola, 2020c), African and Nigerian studies reveal persistent barriers in the built environment (Chataika, 2007; Mutanga and Walker, 2017; Subair and Adeniyi, 2021). For Nigeria specifically, despite the Disability Act (2018), the NCPWD Accessibility Regulations (2023), and the Nigerian Building Code, PGHs remain largely not assessed in terms of accessibility. This neglect undermines the goals of inclusive education and Sustainable Development Goals 4 (quality education) and 10 (reduced inequalities) (Olusola, 2020a). Addressing this gap requires empirical evaluation of PGHs and the formulation of design strategies for disability compliance, a gap that this study intends to fill.

1.7 Study Area

The study is situated in Southwest Nigeria, one of the country's six geopolitical zones. The region comprises six states, namely, Oyo, Ogun, Osun, Ondo, Ekiti, and Lagos (Figure 1), and is widely regarded as the educational hub of Nigeria. It hosts some of the nation's oldest and most prestigious universities, including the University of Ibadan, Obafemi Awolowo University, the University of Lagos, the Federal University of Technology Akure, and the Federal University of Agriculture Abeokuta. The concentration of higher institutions in this region makes it a critical reference point for assessing the state of postgraduate accommodation, accessibility, and disability compliance in Nigeria. Southwest Nigeria is characterized by a tropical climate with two major seasons: wet and dry, which directly influence the building design and maintenance of hostel facilities. The region also enjoys a relatively high level of urbanization and infrastructural development compared to other zones, yet it still faces significant challenges in student housing due to increasing enrollment and underfunding of university facilities. The growing postgraduate population, combined with the need for research-friendly and inclusive hostels, makes the Southwest a strategic location for this study.

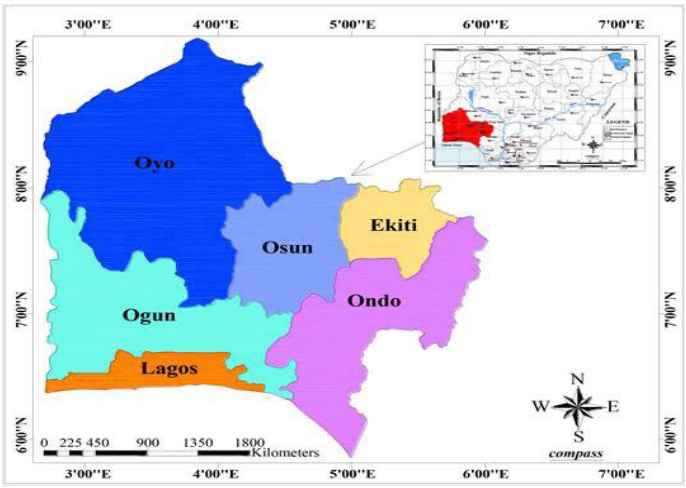


Figure 1: Map of the southwest of Nigeria

Source: United Nations cartographic section (2022)

3.0 Research Methodology

This study adopts a descriptive survey research design complemented by field observation and case study analysis. The survey component provides quantitative data through questionnaires, while the observations provide qualitative depth, ensuring a holistic evaluation. The study population comprises postgraduate students residing in hostels across selected universities in Southwest Nigeria. This group's choice is justified because they directly experience the accessibility or inaccessibility of hostel facilities. Additionally, students with disabilities form a critical sub-population within this group, as their experiences provide essential insights into compliance with disability standards. Both primary and secondary data were used to ensure comprehensive coverage. Primary data were obtained directly from the field through structured questionnaires: administered to postgraduate hostel residents to gather information on socioeconomic characteristics, hostel accessibility, and perceived compliance with disability standards.

A multi-stage sampling technique was employed to systematically select universities, PGHs, and respondents for assessing ADC in PGHs in Southwest Nigeria. In the first stage, federal universities within Nigeria's South-Western geopolitical zone were purposively selected. The region was chosen because of its higher education institution concentration, large postgraduate student population, and the need to evaluate how ADC are addressed in postgraduate student housing. Universities with functional postgraduate hostel facilities were prioritized to ensure that the study captured relevant residential environments for physical assessment and user evaluation. In the second

stage, PGHs within the selected universities were purposively selected based on their relevance to the study objectives. The availability of postgraduate accommodation, physical characteristics of the buildings, existing or potential accessibility provisions, and variations in ADC were considered for selection. Key features, such as entrances, ramps, lifts, corridors, door widths, sanitary facilities, circulation routes, and signage, were considered in relation to the Nigerian Building Code (2006) and the 2018 Act.

In the third stage, the respondents were randomly selected from among the postgraduate students residing in the chosen hostels. Both physically and non-physically challenged students were included because the accessibility and usability of hostel facilities affect all residents, whereas physically challenged students experience accessibility barriers more directly. Particular attention was given to physically challenged students because their lived experiences provide important information on the actual usability of entrances, ramps, stairs, lifts, corridors, sanitary facilities, rooms, and other hostel facilities. Therefore, their experiences complement the physical assessment of the hostels and provide evidence on whether existing accessibility provisions are functional and usable in practice.

The sample size was calculated using the Slovin formula at a 95% confidence level and 5% margin of error, ensuring the representativeness of the hostel population. The final sample size was proportionately distributed across the selected universities to capture diverse experiences. Participants were randomly chosen to avoid bias within each hostel, while students with disabilities were purposively included to guarantee adequate representation of their perspectives. Table 1 shows the sampling frame used in the study.

The Alvin formula was employed to determine the sample size using a total population size of as computed below:

n =

Where n = Sample size

N = Population size (2031)

E= margin of error * i.e., 95% confidence level gives* desired (0.05)

n = 334, and N = 2031

The minimum sample size used in this study as obtained from the Slovin formula is 334. The study used 20% of the total population.

(i.e., 20/100 X 2031) = 406

A set of 406 questionnaires was distributed to the users of the hostel, which served as the total sample size, out of which 334 questionnaires were retrieved, representing 82.3%. The quantitative data obtained from structured questionnaires administered to postgraduate students were analysed using SPSS and Microsoft Excel. Descriptive statistics comprised frequencies, percentages, means, and charts; inferential statistics (ANOVA, Linear Regression and Correlation) were used to explore the relationships between the characteristics of the respondents and their perceptions of accessibility. A total of 406 questionnaires were administered to respondents across the PGHs. Table 1 shows the sampling frame, sample size, administered questionnaires, and number of questionnaires retrieved in the study area.

Table 2: Questionnaires administered and number of questionnaires retrieved

S/N	State	Name of the university	Name of the hostel	Capacity	Number of Questionnaires Administered	Number of Questionnaires Retrieved
1	Lagos	University Of Lagos	Henry Carr Hall	248	50	41
			Erastus Kingbolt Hall	262	52	43
2	Ondo	Federal University of Technology Akure	WAKU Hall	300	60	49
3	Osun	Obafemi Awolowo University, Ile-Ife	Murtala Mohammed Hall, M.D.	400	80	66
4	Oyo	University of Ibadan	Tagawa Balewa Hall	207	41	34
			Adetowun Ogunsheye Hall	158	32	26
			Alumni Hall	54	11	9
5	Ogun	Federal University of Agriculture, Abeokuta	Marble Hall	100	20	16
			PG Female Hall	124	25	21
			PG male hostel	178	35	29
			Total	**2031**	**406**	**334**

4.0 Results and Discussion

4.1 Socioeconomic characteristics of the respondents

The socioeconomic characteristics of respondents provide an important foundation for interpreting the study findings. Characteristics such as gender, age, marital status, level of study, income, disability condition, and duration of stay, accommodation type, and employment status influence the perception of accessibility, mobility, convenience, and compliance within postgraduate hostel environments. The obtained results are shown in Table 2.

Table 2: Socioeconomic characteristics of respondents

1. Gender	UNILAG N (%)	FUTA N (%)	OAU N (%)	UI N (%)	FUNAAB N (%)	Total N (%)
Male	50 (59.5)	29 (59.2)	38 (58.5)	42 (60.0)	39 (59.1)	198 (59.4)
Female	29 (34.5)	17 (34.7)	23 (35.4)	24 (34.3)	23 (34.8)	116 (34.7)
Prefer not to say	5 (6.0)	3 (6.1)	4 (6.2)	4 (5.7)	4 (6.1)	20 (5.9)
Total	84 (100)	49 (100)	65 (100)	70 (100)	66 (100)	334 (100)
2. Age Group	**UNILAG N (%)**	**FUTA N (%)**	**OAU N (%)**	**UI N (%)**	**FUNAAB N (%)**	**Total N (%)**
20–25 years	20 (23.8)	12 (24.5)	16 (24.6)	17 (24.3)	16 (24.2)	81 (24.2)
26–30 years	21 (25.0)	12 (24.5)	17 (26.2)	18 (25.7)	17 (25.8)	85 (25.5)
31–35 years	19 (22.6)	11 (22.4)	14 (21.5)	16 (22.9)	16 (24.2)	76 (22.7)
Above 36 years	24 (28.6)	14 (28.6)	18 (27.7)	19 (27.1)	17 (25.8)	92 (27.6)
Total	84 (100)	49 (100)	65 (100)	70 (100)	66 (100)	334 (100)
3. Marital Status	**UNILAG N (%)**	**FUTA N (%)**	**OAU N (%)**	**UI N (%)**	**FUNAAB N (%)**	**Total N (%)**
Married	32 (38.1)	19 (38.8)	25 (38.5)	27 (38.6)	25 (37.9)	128 (38.3)
Single	27 (32.1)	15 (30.6)	21 (32.3)	22 (31.4)	21 (31.8)	106 (31.9)
Divorced or widowed	25 (29.8)	15 (30.6)	19 (29.2)	21 (30.0)	20 (30.3)	100 (29.8)
Total	84 (100)	49 (100)	65 (100)	70 (100)	66 (100)	334 (100)
4. Level of study	**UNILAG N (%)**	**FUTA N (%)**	**OAU N (%)**	**UI N (%)**	**FUNAAB N (%)**	**Total N (%)**
Masters	33 (39.3)	19 (38.8)	25 (38.5)	27 (38.6)	26 (39.4)	130 (39.0)
PhD	23 (27.4)	14 (28.6)	18 (27.7)	20 (28.6)	18 (27.3)	93 (27.9)
Others	28 (33.3)	16 (32.7)	22 (33.8)	23 (32.9)	22 (33.3)	111 (33.1)
Total	84 (100)	49 (100)	65 (100)	70 (100)	66 (100)	334 (100)
5. Monthly Income	**UNILAG N (%)**	**FUTA N (%)**	**OAU N (%)**	**UI N (%)**	**FUNAAB N (%)**	**Total N (%)**
Less than □70,000	21 (25.0)	12 (24.5)	17 (26.2)	18 (25.7)	17 (25.8)	85 (25.5)

☐70,000–☐150,000	22 (26.2)	13 (26.5)	17 (26.2)	19 (27.1)	17 (25.8)	88 (26.4)
☐150,000–☐300,000	21 (25.0)	12 (24.5)	16 (24.6)	17 (24.3)	16 (24.2)	82 (24.5)
Above ☐300,000	20 (23.8)	12 (24.5)	15 (23.1)	16 (22.9)	16 (24.2)	79 (23.6)
Total	84 (100)	49 (100)	65 (100)	70 (100)	66 (100)	334 (100)
6. Nature of the Physical Disability	**UNILAG N (%)**	**FUTA N (%)**	**OAU N (%)**	**UI N (%)**	**FUNAAB N (%)**	**Total N (%)**
No disability	38 (45.2)	22 (44.9)	30 (46.2)	32 (45.7)	30 (45.5)	152 (45.5)
Mobility impairment	13 (15.5)	8 (16.3)	10 (15.4)	11 (15.7)	10 (15.2)	52 (15.5)
Others	20 (23.8)	11 (22.4)	15 (23.1)	16 (22.9)	16 (24.2)	78 (23.3)
Visual impairment	13 (15.5)	8 (16.3)	10 (15.4)	11 (15.7)	10 (15.2)	52 (15.5)
Total	84 (100)	49 (100)	65 (100)	70 (100)	66 (100)	334 (100)
7. Duration of Hostel Stay	**UNILAG N (%)**	**FUTA N (%)**	**OAU N (%)**	**UI N (%)**	**FUNAAB N (%)**	**Total N (%)**
Less than 1 year	29 (34.5)	17 (34.7)	23 (35.4)	24 (34.3)	23 (34.8)	116 (34.7)
1–2 years	28 (33.3)	17 (34.7)	21 (32.3)	24 (34.3)	22 (33.3)	112 (33.4)
More than 2 years	27 (32.1)	15 (30.6)	21 (32.3)	22 (31.4)	21 (31.8)	106 (31.9)
Total	84 (100)	49 (100)	65 (100)	70 (100)	66 (100)	334 (100)
8. Type of accommodation	**UNILAG N (%)**	**FUTA N (%)**	**OAU N (%)**	**UI N (%)**	**FUNAAB N (%)**	**Total N (%)**
Single room	25 (29.8)	14 (28.6)	19 (29.2)	20 (28.6)	19 (28.8)	97 (29.1)
Shared Rooms	30 (35.7)	18 (36.7)	23 (35.4)	25 (35.7)	24 (36.4)	120 (35.9)
Apartment	29 (34.5)	17 (34.7)	23 (35.4)	25 (35.7)	23 (34.8)	117 (35.0)
Total	84 (100)	49 (100)	65 (100)	70 (100)	66 (100)	334 (100)
9. Distance of the hostel from the department	**UNILAG N (%)**	**FUTA N (%)**	**OAU N (%)**	**UI N (%)**	**FUNAAB N (%)**	**Total N (%)**
Within 5 min	9 (10.7)	6 (12.2)	7 (10.8)	8 (11.4)	7 (10.6)	37 (11.0)
5–10 minutes	28 (33.3)	16 (32.7)	22 (33.8)	23 (32.9)	23 (34.8)	112 (33.4)
Over 10 min	47 (56.0)	27 (55.1)	36 (55.4)	39 (55.7)	36 (54.5)	185 (55.6)

Total	84 (100)	49 (100)	65 (100)	70 (100)	66 (100)	334 (100)
10. Employment status while studying	**UNILAG N (%)**	**FUTA N (%)**	**OAU N (%)**	**UI N (%)**	**FUNAAB N (%)**	**Total N (%)**
Employed	46 (54.8)	27 (55.1)	36 (55.4)	39 (55.7)	37 (56.1)	185 (55.5)
Unemployed	38 (45.2)	22 (44.9)	29 (44.6)	31 (44.3)	29 (43.9)	149 (44.5)
Total	84 (100)	49 (100)	65 (100)	70 (100)	66 (100)	334 (100)

4.1.1 Gender of the Respondents

The gender distribution of respondents presented in Figure 2 indicates that respondents who preferred not to disclose their gender constitute 5.9% of the sample, while female respondents account for 34.7%. Male respondents represented 59.4% of the respondents, as shown in Table 3. This suggests that the survey captured a fairly balanced gender distribution. From an accessibility perspective, gender diversity remains important because hostel users may differ in their perception of spatial convenience, security, privacy, and ease of movement within residential environments. Female respondents, for instance, may place stronger emphasis on safe circulation routes, adequate lighting, and private sanitary facilities, while male respondents may also assess accessibility based on convenience and functionality. This suggests that inclusive hostel design should consider all users' needs while ensuring that accessibility measures are equitable and responsive.**Figure 2 Gender distributions of the respondents**

4.1.2 Age distribution of the respondents

The age distribution presented in Figure 3 shows that the largest proportion of respondents falls within the age category of 36 years and above, representing 27.6% of the sample. This is followed by respondents aged 26–30 years, who account for 25.5%, while those aged 20–25 years represent 24.2%. Respondents aged 31–35 years constitute 22.7% of the respondents. The results indicate that the respondents are fairly distributed across the different age categories, although there is a slight dominance of older postgraduate students aged 36 years. The age structure of residents is important for this study because accessibility needs often vary across age groups. Younger students may be more adaptable to inconvenient environments, whereas older students may be more sensitive to barriers such as long walking distances, stair-dominated circulation, poor signage, or inaccessible sanitary spaces. For physically challenged users, increasing age may also heighten the importance of supportive design features such as ramps, handrails, non-slip surfaces, and easily navigable layouts.

Figure 3 Age distribution of respondents

4.1.3 Marital status of respondents

The marital status distribution presented in Figure 4 shows that married respondents constitute the largest proportion of the sample, accounting for 38.3%. Single respondents represented 31.9%, whereas divorced or widowed respondents accounted for 29.8%. This distribution indicates that postgraduate hostel residents comprise users with varied social and family responsibilities. The dominance of married respondents suggests that a substantial proportion of hostel users may have additional domestic obligations alongside their academic pursuits. The relatively high proportion of divorced or widowed respondents also indicates a mature resident population with diverse life experiences. Marital status is relevant to the study because it may influence expectations of privacy, spatial adequacy, convenience, and accessibility within hostel environments. Married and older residents may attach greater importance to comfort, safety, and ease of movement, particularly in relation to room access, sanitary facilities, and proximity to academic departments. These findings suggest that postgraduate hostel design should not assume a homogeneous student population but should instead respond to users' varied personal and social needs.

Figure 4: Marital status of the respondents

4.1.4 Level of the study of the respondents

The level of study distribution shown in Figure 5 indicates that master's students constitute the largest proportion of respondents, accounting for 39.0% of the sample. This is followed by respondents in the other category with 33.1%, while PhD students represent 27.9% of the respondents. The dominance of master's students reflects the structure of

postgraduate education in many Nigerian universities, where master's programs usually attract larger enrollments than doctoral programs. The substantial representation of PhD students and respondents in other postgraduate categories further indicates that a broad academic population with different academic demands and patterns of residence uses hostel facilities. From an accessibility perspective, the level of study is important because different academic programs may influence how students interact with hostel environments. Master's students may require flexible and functional living spaces that support coursework and group engagement, whereas PhD students may require environments that provide sustained comfort, independence, and reduced physical stress. This makes accessibility compliance an essential consideration in hostel design for all levels of postgraduate study.

Figure 5: Level of study of respondents

4.1.5 Monthly income range of the respondents

The monthly income distribution presented in Figure 6 shows that respondents earning between ☐70,000 and ☐150,000 represent the largest proportion of the sample, accounting for 26.4%. Respondents earning below ☐70,000 account for 25.5%, while those earning between ☐150,000 and ☐300,000 constitute 24.5%. Respondents earning ☐300,000 and above represent 23.6% of the respondents. The results indicate that respondents are relatively evenly distributed across the various income categories, suggesting that postgraduate hostel users come from different economic backgrounds. The slight dominance of the ☐70,000 to ☐150,000 income range may reflect the financial condition of many postgraduate students who combine studies with limited employment, assistantship, or modest personal income. Income level is an important variable in this study because economic capacity can shape residents' ability to cope with inaccessible environments. Students with higher incomes may be able to seek alternative accommodation or arrange private mobility support, whereas students with lower incomes may depend more heavily on university-provided facilities.

Figure 6: Monthly income range of respondents

4.1.6 Nature of physical disability of respondents

Figure 7 shows the distribution of respondents by the nature of physical disability. Mobility impairment, visual impairment, and respondents with no disability each account for 15.5% of the sample, whereas respondents with no disability account for 45.5%. Respondents in the other disability category accounted for 23.5%. Respondents with varying disability conditions emphasize the need for inclusive hostel design that accommodates multiple forms of impairment rather than focusing on a single category. Mobility-impaired users are likely to be more affected by stairs, uneven surfaces, and narrow circulation routes, whereas visually-impaired users may be more concerned with signage, orientation, lighting, and tactile guidance. These findings reinforce the importance of universal design principles in hostel planning.

Figure 7 Nature of the physical disability of the respondents

4.1.7 Duration of Hostel Stay

The duration of stay of respondents presented in Table 4 shows that the largest proportion of respondents, representing 34.7%, stayed in the hostel for less than one year. This is followed by 33.4% who has stayed for one to two years, while 31.9% have stayed for more than two years. These findings indicate that respondents are fairly evenly distributed across the categories of hostel residence, although those with 1 year of stay form the largest group. This suggests that the survey captured both new residents and long-term users with hostel facilities. Such a distribution is useful because it provides perspectives from respondents with different levels of familiarity with the hostel environment. The duration of stay is important in evaluating accessibility conditions because residents who have spent longer periods in the hostel are likely to have had more sustained interaction with circulation spaces, entrances, sanitary facilities, and external routes. Therefore, they may provide deeper insight into how accessible or inaccessible these facilities are over time. Long-term users are particularly valuable in identifying recurring barriers and maintenance-related issues that may not be immediately obvious to new residents.

4.1.8 Type of accommodation

The type of accommodation distribution shown in Figure 8 indicates that shared rooms constitute the largest accommodation type, accounting for 35.9% of the respondents. Apartment accommodation closely followed with 35.0%, whereas single rooms represented 29.1% of the sample. The results indicate that the majority of respondents reside in shared room and apartment arrangements, suggesting that communal and semi-private forms of accommodation are more common than single rooms. This pattern may reflect institutional efforts to maximize occupancy levels and accommodate the growing postgraduate population. Accommodation type is relevant to the study because accessibility

experiences can vary significantly depending on room arrangement. Shared rooms may present challenges related to limited space, restricted movement, and reduced privacy, especially for physically challenged students who require assistive devices or greater spatial flexibility. Apartment accommodation may offer better independence and functional convenience, whereas single rooms may be more suitable for users who require privacy and unobstructed mobility. These findings suggest that room design and allocation policies should consider accessibility and disability needs.

Figure 8: Type of Housing

4.1.9 Distance of the hostel from the department

The distance of the hostel from the respondents' departments is presented in Figure 9, showing that 55.6% of the respondents indicated that their hostel is located over 10 minutes' walk from their department. Respondents whose hostels are within 5 to 10 minutes' walk account for 33.4%, while those within 5 minutes represent 11.0% of the sample. This result indicates that a substantial proportion of postgraduate hostel residents live in relatively long walking distances from their academic departments. The dominance of the category of over 10 minutes suggests that proximity to academic facilities is a challenge for many hostel users. Distance is particularly significant in a study on ADC because walking time and route length directly affect the daily mobility of physically challenged students. Longer distances may become more burdensome where pathways are poorly maintained, ramps are absent, shading is inadequate, or pedestrian routes are not disability friendly. Therefore, the findings emphasize the importance of considering proximity, route quality, and universal access in the siting and planning of future PGHs.

Figure 9: Distance of the hostel from the department

4.1.10 Employment status of the respondents

Figure 10 indicates that 55.5% of the respondents are currently employed or engaged in work alongside their studies, whereas 44.5% are not employed. This finding suggests that most postgraduate hostel residents combine academic work with some form of employment or occupational engagement. This is not unusual within postgraduate education, where many students pursue advanced degrees by supporting themselves through work, teaching assistance, research engagement, or professional practice. Employment status is important in understanding the experiences of respondents because students who combine work with study may place greater value on convenience, efficient movement, and reduced physical stress within hostel environments. Inaccessible hostel facilities may create additional burdens for physically challenged students by increasing travel difficulty, time loss, and physical fatigue. This makes ADC essential not only for comfort but also for productivity and balanced daily living.

Figure 10: Employment status of the respondents

4.2 Accessibility Features and Disability Compliance Level in Selected PGHs

This section examines the accessibility features and level of disability compliance in selected PGHs across South-western universities in Nigeria. The assessment focuses on the extent to which hostel environments provide inclusive and accessible facilities that support independent movement, safety, and convenience for students with disabilities. Accessibility was evaluated using seven key indicators: step-free entrances and walkways, ramps, handrail availability, corridor and doorway width adequacy, elevator or lift availability, sanitary facility accessibility, and lighting and signage adequacy. These indicators were assessed through respondents' perceptions using a five-point Likert scale, while weighted values were computed to determine each accessibility feature's relative performance.

4.2.1 Assessment of accessibility features and compliance with disability in selected PGHs

Having examined the accessibility features and level of disability compliance within the selected PGHs individually, the overall pattern of respondents' perceptions was analysed to provide a comprehensive assessment of accessibility conditions across the five universities. Table 3 presents the combined assessment, aggregating respondents' views on the principal accessibility indicators, namely, step-free entrances and walkways, ramps, elevators or lifts, lighting and signage, handrails, accessible sanitary facilities, and corridor and doorway widths. Table 3 presents the combined assessment of accessibility features and disability compliance across the PGHs. The findings indicate that respondents generally rated the accessibility provisions of the hostels below the acceptable benchmark of 3.00, as all the accessibility variables recorded mean weighted values (TWV/f) below the benchmark. This suggests that disability-inclusive facilities within the selected PGHs remain generally inadequate.

The statement "Hostel entrances and surrounding walkways are step-free and accessible to all users" recorded the highest mean weighted value

of 2.58. Although this variable ranked highest among the accessibility indicators, its mean value remained below the benchmark of 3.00, indicating that respondents generally disagreed that all users were fully accessible to hostel entrances and connecting walkways. This suggests that while external access is better than other accessibility features, barriers to independent movement still exist. The statement "Ramps are provided at entrances and connected circulation areas for mobility-impaired users" ranked second with a mean weighted value of 2.57. This indicates that respondents perceived the provision of ramps to be inadequate across the selected hostels, suggesting that many buildings still lack sufficient barrier-free access for wheelchair users and other persons with mobility impairments.

The availability and functionality of elevators or lifts ranked third with a mean weighted value of 2.55, indicating that vertical circulation facilities remain insufficient, particularly in multi-storey hostel buildings where accessible movement between floors is essential. The statement "Lighting and signage are clear and adequate for safe navigation" ranked fourth with a mean weighted value of 2.54. Respondents generally disagreed that lighting and wayfinding systems adequately support safe and independent navigation within the hostel environment. The provision of accessible bathrooms and toilets equipped with grab rails and sufficient wheelchair turning space ranked fifth with a mean weighted value of 2.52, while the availability of handrails along staircases and ramps also recorded a mean weighted value of 2.52, ranking sixth. These findings suggest that the supportive accessibility features required for safety, convenience, and independent living remain inadequate across the selected institutions.

The lowest-ranked accessibility variable was "Corridors and doorways are wide enough for wheelchair access," with a mean weighted value of 2.41. This indicates that the internal circulation represents the greatest accessibility challenge within the selected PGHs. Narrow corridors and restricted doorway widths significantly reduce wheelchair manoeuvrability and limit independent access to hostel facilities.

Overall, the average weighted value of 168.60 and the overall mean weighted value of 2.54 indicate that respondents generally disagreed that the selected PGHs provide adequate accessibility facilities for persons with disabilities. Therefore, the findings demonstrate that although some accessibility measures have been incorporated into the hostels, they remain insufficient to achieve full disability compliance. To create more inclusive postgraduate residential environments, improvements in barrier-free access, ramps, elevators, circulation spaces, sanitary facilities, handrails, lighting, signage, and universal design implementation are necessary.

Table 3: Assessment of accessibility features and compliance with disability in selected PGHs (n = 334)

S/N	Variables	SD (1)	D (2)	N (3)	A (4)	SA (5)	TWV	TWV/f (MWV)	AWV	Rank
1	Hostel entrances and surrounding walkways are step-free and accessible to all users	80	99	69	54	32	861	2.58	172.20	1st
2	Ramps are provided at entrances and connected circulation areas for mobility-impaired users.	86	93	68	53	34	858	2.57	171.60	2nd
3	Elevators or lifts are available and functional in multi-storey hostels.	88	93	66	54	33	853	2.55	170.60	3rd
4	Clear and adequate lighting and signage for safe navigation	90	90	69	52	33	850	2.54	170.00	4th
5	Bathrooms and toilets have grab rails and sufficient turning space for wheelchairs.	93	89	69	50	33	843	2.52	168.60	5th
6	Handrails are available along stairs and ramps to aid movement.	94	90	66	51	33	841	2.52	168.20	6th
7	The corridors and doorways are wide enough for wheelchair access.	101	91	67	47	28	806	2.41	161.20	7th
Total Average							**5912**	**2.54**	**168.91**	

4.2.2 Comparative Assessment of Accessibility Indices across Selected Universities

Overall, the comparative findings shown in Table 4 demonstrate that while some universities have made greater progress than others, ADC remains below acceptable standards across all institutions. The absence of any university meeting the benchmark MWV of 3.00 highlights the need for improved accessibility planning and implementation. Consequently, institutions should adopt universal design principles, strengthen compliance with the National Commission for Persons with Disabilities (NCPWD), 2023 Accessibility Regulations (2023), prioritize barrier-free renovations, and establish regular accessibility audits and maintenance programs to create safer, more inclusive, and user-friendly postgraduate residential environments.

Table 4: Comparative Assessment of the Indices of Accessibility Features across Selected Universities

University	Sample size (n)	TWV	MWV	Performance Level	Rank
OAU	65	1270	**2.79**	Fairly Moderate	1st
University of Ibadan (UI)	70	1347	**2.75**	Fairly Moderate	2nd
Federal University of Technology Akure (FUTA)	49	872	**2.54**	Low	3rd
Federal University of Agriculture Abeokuta (FUNAAB)	66	1086	**2.35**	Low	4th
University of Lagos	84	1337	**2.27**	Low	5th
Overall	**334**	**5912**	**2.54**	Low	

4.3 Perceptions of Accessibility and Inclusivity

This section assesses the experiences and perceptions of postgraduate hostel users regarding accessibility and inclusivity within the selected hostels across south-western universities in Nigeria. This study aims to examine how residents perceive the extent to which the hostel environment supports free movement, equal participation, safety, comfort, and institutional commitment to inclusive living. To obtain a more detailed and quantitative assessment of respondents' experiences and perceptions, the responses were analysed using the total weighted value (TWV), mean weighted value (MWV = TWV/f), and average weighted value (AWV). This approach makes it possible to compare the relative performance of the variables and determine the areas in which. hostel environments are perceived to be more supportive or deficient

4.3.1 Assessment of User Experiences and Accessibility Perceptions in the Selected PGHs

Having examined users' experiences and perceptions of accessibility within the selected PGHs individually, the overall pattern of respondents' perceptions was analysed to provide a comprehensive assessment of accessibility experiences across the five selected universities. Table 5 presents this aggregate assessment by combining respondents' views on management responsiveness to accessibility concerns, independent access to hostel facilities, freedom of movement, the presence of physical barriers, and users' perceptions of safety and comfort within the hostel environment. Table 5 presents the combined

assessment of users' experiences and perceptions of accessibility across the selected PGHs. The findings reveal that respondents generally perceived the accessibility of the hostel environments to be below the acceptable benchmark, as all the assessed variables recorded mean weighted values (TWV/f) below 3.00. Although some accessibility measures are available, they remain insufficient to provide a fully inclusive residential environment that supports independent movement, safety, and comfort for all users.

The statement "Hostel staff or management respond promptly whenever accessibility issues are reported" recorded the highest mean weighted value of 2.78. Although this variable received the highest rating among the assessed indicators, its mean value remained below the benchmark of 3.00, indicating that respondents only moderately agreed that management adequately responds to accessibility-related complaints. This suggests that while institutional responsiveness exists, it is not sufficiently effective to completely address users' accessibility concerns. The statement "The hostel design allows me to access the entrance, rooms, bathrooms, kitchen, and study areas without assistance" ranked second with a mean weighted value of 2.72. This finding indicates that respondents perceived the hostel design to provide only limited support for independent access to essential facilities. Although some accessible features are present, they remain inadequate to ensure unrestricted movement for all residents, particularly persons with disabilities.

The statement "I can move freely within the hostel without difficulty" ranked third with a mean weighted value of 2.66. This suggests that respondents continue to experience challenges in navigating the hostel environment due to physical and architectural constraints that restrict free movement within the buildings. The statement "I frequently encounter physical barriers such as steps, narrow doorways, or steep ramps" ranked fourth with a mean weighted value of 2.63. Although the mean value was below the benchmark, the responses indicated that structural barriers remained a common feature of the hostel environment. Such barriers continue to hinder mobility and reduce the effectiveness of existing accessibility provisions.

The lowest-ranked statement was "I feel safe and comfortable using the hostel facilities regardless of my physical condition," which recorded a mean weighted value of 2.59. This finding suggests that respondents were generally not satisfied with the safety and comfort level provided by the selected PGHs. The relatively low rating implies that the existing hostel environment does not adequately support users with varying physical abilities or provide a consistently inclusive residential experience.

Overall, the AWV of 893.60 and the overall mean weighted value (TWV/f) of 2.68 indicate that respondents generally disagreed that the selected PGHs provide an adequately accessible, safe, and inclusive residential environment. Therefore, although management responsiveness received comparatively better ratings, improvements are still required in hostel design, barrier-free circulation, accessibility infrastructure, and user safety. Consequently, the adoption of universal design principles, routine accessibility audits, continuous maintenance of accessibility facilities, and retrofitting of existing hostel buildings with inclusive design features are essential to improve mobility, comfort, independence, and overall residential satisfaction among postgraduate students.

Table 5: Assessment of users' experiences and perceptions of accessibility in selected PGHs (n = 334)

S/N	Variables	1 (SD)	2 (D)	3 (N)	4 (A)	5 (SA)	TWV	TWV/f	AWV	Rank
1	Hostel staff or management respond promptly whenever accessibility issues are reported.	77	78	67	72	40	927	2.78	185.40	1st
2	The hostel design allows me to access the entrance, rooms, bathrooms, kitchen, and study areas without assistance.	81	79	67	67	40	908	2.72	181.60	2nd
3	I can freely move within the hostel without difficulty.	87	81	64	62	40	889	2.66	177.80	3rd
4	I frequently encounter physical barriers such as steps, narrow doorways, or steep ramps.	88	82	67	57	40	879	2.63	175.80	4th
5	I feel safe and comfortable using the hostel facilities regardless of my physical condition.	91	83	65	55	40	864	2.59	172.80	5th
	Total Average						**4467**	**2.68**	**893.60**	

4.3.2 Comparative Assessment of User Experiences and Perceptions of Accessibility across Universities

Table 6 presents the overall assessment of users' experiences and perceptions of accessibility across the five selected universities. The analysis was based on responses obtained from 334 postgraduate hostel residents and evaluated five key accessibility experience indicators related to management responsiveness, independent access to hostel facilities, freedom of movement, presence of physical barriers, and users' perception of safety and comfort. The overall mean weighted value (MWV) and ranking provide a comparative assessment of accessibility performance across institutions. Among the universities assessed, OAU recorded the highest overall accessibility rating with an MWV of 2.79, followed closely by the University of Ibadan (UI) with an MWV of 2.75. These comparatively higher ratings suggest that respondents perceived better management responsiveness, easier access to essential hostel facilities, and fewer accessibility challenges than those in other universities. Nevertheless, both institutions recorded values below the acceptable benchmark, indicating that significant improvements are still required to achieve fully accessible and inclusive hostel environments despite their relatively stronger performance.

The Federal University of Technology Akure ranked third with an MWV of 2.67, reflecting moderate accessibility experiences characterized by partial access to facilities, persistent mobility constraints, and continued encounters with physical barriers. The

University of Lagos ranked fourth with an MWV of 2.60, while the Federal University of Agriculture Abeokuta recorded the lowest overall accessibility rating with an MWV of 2.57. The relatively lower ratings obtained by these institutions indicate that respondents experienced greater difficulties in moving freely within the hostel environment, independently accessing key facilities, and feeling safe and comfortable during the everyday use of hostel spaces.

Table 6: Comparative Assessment of User Experiences and Perception of Accessibility across the Selected Universities (n = 334)

University	TWV	MWV	Rank
OAU	907	2.79	1st
University of Ibadan (UI)	964	2.75	2nd
Federal University of Technology Akure (FUTA)	655	2.67	3rd
University of Lagos	1093	2.60	4th
Federal University of Agriculture Abeokuta (FUNAAB)	848	2.57	5th
Grand Total	**4467**	**2.68**	

4.4 Evaluation of the ADC Challenges

ADC in the selected PGHs using MWVs derived from 334 respondents. The analysis ranks the identified constraints according to their perceived severity, highlighting the institutional, managerial, and physical factors that limit the achievement of inclusive hostel environments. The results are presented in Table 7. The findings in Table 7 indicate that limited training among hostel management and weak enforcement of disability compliance regulations emerged as the most significant challenges, each recording a TWV of 757, MWV of 2.27, and AWV of 151.40, ranking jointly 1st. These were closely followed by overall institutional and policy challenges, which recorded a TWV of 755, MWV of 2.26, and AWV of 151.00, while complex administrative procedures ranked next with a TWV of 753 and MWV of 2.25. These results suggest that respondents perceived institutional capacity, regulatory enforcement, and administrative effectiveness as the principal factors influencing successful ADC implementation within the hostels.

Financial and social issues were also prominent among the identified constraints. Negative attitudes and stigma toward physically challenged students recorded a TWV of 752 and MWV of 2.25, indicating that discriminatory perceptions and limited social inclusion remain important barriers to achieving accessible residential environments. Similarly, lack of funding for accessible facilities recorded a TWV of 745 and MWV of 2.23, while limited awareness among hostel management closely followed with a TWV of 744 and MWV of 2.23. These findings imply that improvements in disability compliance require not only increased financial investment but also greater awareness, institutional commitment, and positive attitudes toward inclusive accommodation. The least-ranked challenges were inadequate maintenance, which leads to the malfunctioning of ramps, lifts, or other accessibility features (TWV = 722; MWV = 2.16) and poor design and construction quality, which affects accessibility for students with disabilities (TWV = 703; MWV = 2.10). Although these variables ranked lower than institutional and managerial challenges, their mean values indicate that physical infrastructure and maintenance deficiencies remain significant accessibility concerns.

Overall, the aggregate TWV of 6,688 and average MWV of 2.22 demonstrate that respondents generally perceived accessibility challenges as multidimensional, with governance, policy implementation, staff capacity, funding, and social attitudes exerting a greater influence than physical design deficiencies alone. Consequently, improving disability compliance in PGHs requires stronger policy enforcement, continuous staff training, adequate funding, institutional commitment, and sustained

investment in accessible infrastructure.

Table 7: Challenges Affecting ADC Indices (n = 334)

S/N	Statements	SD	D	N	A	SA	TWV	MWV	AWV	Rank
1	Limited training among hostel management affects inclusion of persons with disabilities	111	105	58	38	22	757	2.27	151.40	1st
2	There is weak enforcement of disability compliance regulations in the university.	103	104	77	35	15	757	2.27	151.40	1st
3	Overall institutional and policy challenges hinder the achievement of full hostel accessibility	124	79	77	28	26	755	2.26	151.00	3rd
4	Complex administrative procedures delay accessibility improvements	105	106	74	31	18	753	2.25	150.60	4th
5	Negative attitudes and stigma toward physically challenged students discourage their participation in the study	118	87	73	39	17	752	2.25	150.40	5th
6	Lack of funding limits the provision of accessible hostel facilities	103	114	72	27	18	745	2.23	149.00	6th
7	Limited hostel management awareness affects inclusion of persons with disabilities	106	111	70	29	18	744	2.23	148.80	7th
8	Inadequate maintenance leads to the malfunctioning of ramps, lifts, or other accessibility features.	126	93	65	35	15	722	2.16	144.40	8th
9	Poor design and construction quality affect accessibility for students with disabilities	133	93	56	40	12	703	2.10	140.60	9th
	Total average						**6,688**	**2.22**	**1,337.60**	

4.5 Relationship between Students' Socioeconomic Characteristics and Users' Perceptions of Accessibility and Inclusivity in the Study Areas

Table 8 shows the regression analysis results showing the relationship between the socioeconomic characteristics of students and users' perceptions of accessibility and inclusivity in the study areas. The results show a strong and significant relationship between the socioeconomic characteristics of students and users' perceptions of accessibility and inclusivity in the Study Areas with $p < 0.000$ and F–value of 1.079E3. Furthermore, a strong correlation between the dependent and independent variables is shown by a correlation coefficient (R) of 0.985 and a coefficient of multiple determinations (R2) of 0.970. One study found that a magnitude change in users' perceptions of accessibility and inclusivity could account for approximately 97.0% of the difference in students' socioeconomic features with the accessibility and inclusivity. In other words, socioeconomic factors accounted for 97.0% of the variation in observed student perceptions of accessibility and inclusivity.

Table 8: The Regression analysis results showing the relationship between socioeconomic characteristics of students and users' perceptions of accessibility and inclusiveness

Model Summary

Model	R	R Square	Adjusted R-square	Ad. Error in the Estimate
1	.985[a]	.971	.970	.16758

a. Predictors: (Constant), Employment Status While Studying, Duration of Stay in Hostel, Marital Status, Age, Level of Study, Distance of Hostel from Department, Gender, Monthly Income, Type of Accommodation, Nature of Physical Disability

ANOVA[b]

Model		Sum of the Squares	Df	Mean Square	F	Sig.
1	Regression	302.989	10	30.299	1.079E3	.000[a]
	Residual	9.071	323	.028		
	Total	312.060	333			

a. Predictors: (Constant), Employment Status While Studying, Duration of Stay in Hostel, Marital Status, Age, Level of Study, Distance of Hostel from Department, Gender, Monthly Income, Type of Accommodation, Nature of Physical Disability

b. Dependent Variable: Perceptions of Accessibility and Inclusivity

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Ad. Error	Beta		
1	(Constant)	-7.847	.205		-38.191	.000
	Gender	-1.649	.037	-.846	-44.539	.000
	Age	.497	.013	.532	38.097	.000
	Marital Status	1.269	.026	.957	48.022	.000
	Level of study	-.529	.024	-.259	-21.732	.000
	Monthly Income	.002	.009	.002	.194	.847
	Nature of the Physical Disability	1.638	.040	1.132	40.719	.000
	Type of accommodation	.008	.018	.007	.470	.639
	Duration of Hostel Stay	1.029	.024	.718	42.780	.000
	Distance of the hostel from the department	1.020	.012	1.226	83.097	.000
	Employment status while studying	.767	.020	.740	38.319	.000

a. Dependent Variable: Perceptions of Accessibility and Inclusivity

4.6 Relationship between Socioeconomic Characteristics of Students and Users' Perceptions of Accessibility and Inclusivity in Study Areas Using Pearson's Correlation Coefficient (r)

Table 9 shows the computed Pearson's correlation (r) among pairs of the ten (10) identified relevant socioeconomic characteristic variables in the study area. The results of the findings in the column Gender, Age, Marital Status, Level of Study, Monthly Income, Nature of Physical Disability, Type of Accommodation, Duration of Stay in Hostel, Distance of Hostel from Department, and Employment Status While Studying revealed that all variables were strongly correlated, with both positive and negative correlation coefficient of -0.273**, -0.138*, -0.045, -0.215** -0.177** -0.305**, 0.250**, 0.280**, 0.641**, and 0.213**, respectively, at either one tail or two tails. ** Correlation is significant at the 0.01 level and * Correlation is significant at the 0.05 level. Only marital status was not correlated having -0.045.

Table 9: Relationship between Socioeconomic Characteristics of Students and Users' Perceptions of Accessibility and Inclusivity in Study Areas Using Pearson's Correlation Coefficient (r)

	Gender	Age	Marital Status	Level of study	Monthly Income	Nature of the Physical Disability	Type of accommodation	Duration of Hostel Stay	Distance of the hostel from the department	Employment status while studying	User Perceptions of Accessibility and Inclusivity
Gender	1										
Age	.231**	1									
Marital Status	.470**	.116*	1								
Level of study	-.145**	.085	-.103	1							
Monthly Income	.144**	.264**	.241**	.228**	1						
Nature of the Physical Disability	.450**	-.220**	-.154**	-.345**	-.067	1					
Type of accommodation	.016	-.153**	-.019	-.009	-.296**	-.031	1				
Duration of Hostel Stay	.000	-.163**	.000	.000	-.386**	.000	.777**	1			
Distance of the hostel from the department	-.265**	-.261**	-.296**	.001	.034	-.292**	-.183**	-.290**	1		
Employment status while studying	-.300**	.166**	-.209**	.491**	-.075	-.706**	.073	.000	.209**	1	
User Perceptions of Accessibility and Inclusivity	-.273**	-.138*	-.045	-.215**	-.177**	-.305**	.250**	.280**	.641**	.213**	1

** Correlation is significant at the 0.01 level and * Correlation is significant at the 0.05 level

5.0 Conclusion

Based on the findings of this study, it can be concluded that the socio-economic characteristics of respondents reflect the diverse nature of postgraduate hostel residents in the selected universities. The respondents were individuals from different age groups, educational backgrounds, income categories, and disability conditions. The presence of students with mobility impairments, visual impairments, and other forms of disability demonstrates that PGHs serve users with varying accessibility requirements. This diversity highlights the importance of providing residential environments that are responsive to all users' needs regardless of their physical abilities.

The study further concludes that the accessibility features available within the selected PGHs are generally inadequate. Although some accessibility provisions, such as step-free entrances, ramps, handrails, and elevators, were identified, their levels of provision and effectiveness remain below acceptable standards for disability-inclusive

environments. Essential accessibility elements, such as accessible bathrooms, wheelchair-friendly circulation spaces, adequate wayfinding systems, and barrier-free movement routes, were found to be insufficiently provided. Consequently, the physical environment of many hostels does not adequately support independent movement and convenient use by students with physical disabilities.

The findings also indicate that the level of disability compliance among the selected PGHs is generally low. Existing hostel facilities do not fully comply with established accessibility requirements and disability regulations. Although some hostels reported periodic inspections and maintenance activities, these measures have not translated into satisfactory levels of accessibility. Therefore, the study concludes that compliance with disability accessibility standards remains weak and inconsistent, limiting the extent to which physically challenged students can enjoy equal access to hostel facilities and services. Furthermore, the study concludes that users' experiences of accessibility and inclusivity within the selected hostels are largely unsatisfactory. Many respondents reported challenges related to independent access, freedom of movement, physical barriers, safety, and comfort within the hostel environment. These experiences suggest that the existing hostel designs and management practices do not adequately support the principles of inclusiveness, independence, dignity, and equal participation. The persistence of these challenges indicates that accessibility remains a practical concern in the daily lives of physically challenged students residing in hostels.

The study also concludes that the major barriers to ADC extend beyond physical design deficiencies. Institutional weaknesses, such as poor enforcement of disability regulations, limited training and awareness among hostel management, administrative bottlenecks, policy limitations, inadequate funding, and negative societal attitudes, were identified as significant factors affecting accessibility outcomes. Therefore, the findings demonstrate that improving accessibility requires not only physical modifications to hostel facilities but also institutional commitment, policy implementation, administrative reforms, and attitudinal change among stakeholders.

Finally, the study concludes that the development of a disability-compliant postgraduate in Nigeria requires the adoption of a comprehensive and user-centred design approach is required to develop a disability-compliant postgraduate in Nigeria. Such an approach should incorporate universal design principles, accessible circulation systems, inclusive sanitary facilities, emergency preparedness measures, regular maintenance programs, and active participation of students with disabilities throughout the planning, design, implementation, and evaluation processes. By integrating these measures, future PGHs can provide safer, more accessible, and more inclusive living environments that promote independence, dignity, and equal opportunities for all students irrespective of their physical ability.

5.3 Recommendations

Based on the findings and conclusions of this study, the following recommendations are proposed:

1. University authorities should ensure the strict enforcement of disability accessibility regulations and standards in all postgraduate hostel facilities. The provisions of the National Commission for Persons with Disabilities (NCPWD) Accessibility Regulations and other relevant accessibility guidelines should be made mandatory during the planning, design, construction, renovation, and management of hostel facilities.
2. Existing PGHs should be retrofitted to improve accessibility for students with disabilities. This should include the provision of ramps, handrails, elevators where necessary, accessible entrances, wider doorways, barrier-free circulation routes, and adequate turning spaces for wheelchair users.
3. Accessible sanitary facilities should be incorporated into both existing and future hostel developments. Bathrooms and toilets should be designed with grab rails, non-slip flooring, adequate manoeuvring space, accessible fixtures, and other features that promote safety, dignity, and independent use by persons with disabilities.
4. The university management should establish periodic accessibility audits and compliance inspections for all hostel facilities. Such assessments should be conducted regularly to identify accessibility deficiencies and ensure that corrective measures are promptly implemented.
5. Adequate funding should be allocated specifically for university hostel accessibility improvement projects. Dedicated budgetary provisions will facilitate the installation, upgrading, and maintenance of accessibility facilities and ensure the effective achievement

of inclusion objectives.

6. Universities should establish disability support and accessibility committees to monitor compliance, address complaints, and advise management on accessibility-related matters. Such committees should include representatives of students with disabilities to ensure that their needs are adequately represented.
7. Awareness and sensitization programs should be regularly organized to promote positive attitudes toward persons with disabilities within the university community. These programs should target students, hostel staff, administrators, and other stakeholders to reduce stigma, discrimination, and social exclusion.
8. Students with disabilities should be actively involved in the planning, design, implementation, and post-occupancy evaluation of hostel facilities. Their participation will provide valuable insights into practical accessibility challenges and contribute to the development of more responsive and inclusive hostel environments.
9. Nigerian universities should adopt universal design principles from the earliest stages of planning and design. To ensure equal access for all users regardless of physical ability, this approach should integrate accessible circulation systems, elevators, ramps, wayfinding signage, emergency evacuation provisions, accessible accommodation units, and inclusive communal spaces.

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