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Evaluation of Facilities in Students' Union Buildings in Southwest Nigeria Federal Polytechnics

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Abstract- ***Students' Union Buildings (SUBs) are essential facilities in tertiary institutions because they provide spaces that support students' welfare, leadership development, social interaction, and campus engagement beyond formal classroom activities. In many Nigerian polytechnics, however, these buildings are poorly equipped, inadequately maintained, or lack essential amenities, creating a gap between students' expectations and the available facilities. This inadequacy limits students' opportunities for meaningful participation in union activities and reduces the overall quality of campus life. This study evaluates the state of facilities in Students' Union Buildings across selected Federal Polytechnics in Southwest Nigeria. Using a descriptive and exploratory research design, data were collected through questionnaires, field observations, and case studies, combining quantitative and qualitative approaches. A total of 397 students were sampled from four Federal Polytechnics Ado-Ekiti, Ede, Ilaro, and Yaba College of Technology. The findings revealed that 91% of respondents rated existing SUB facilities as inadequate. Key challenges identified included insufficient seating and recreational spaces, lack of functional meeting rooms, poor maintenance of infrastructure, inadequate accessibility for students with disabilities, and limited provision of utilities such as electricity, water, and sanitary facilities. Field observations confirmed these concerns, highlighting overcrowding, dilapidated interiors, and outdated furniture across most SUBs. These results demonstrate that existing SUBs in Southwest Nigerian polytechnics fail to meet students' social, recreational, and leadership needs. The study concludes that improving the provision, maintenance, and management of SUB facilities is critical for enhancing student satisfaction, promoting active engagement in campus life, and supporting overall student development.***

Keywords: ***Students' Union Buildings, Facility Evaluation, Student Satisfaction, Campus Life, Polytechnic Infrastructure, Maintenance, Southwest Nigeria***

I. INTRODUCTION

The academic experience in higher-education institutions extends beyond formal instruction to include a wide range of social, cultural, and recreational activities that contribute to students' holistic development. Research has shown that student engagement in non-academic experiences enhances learning outcomes, promotes retention, and strengthens a sense of belonging within the university community (Kuh, 2010; Tinto, 2017). Consequently, the quality of campus life as shaped by available facilities and supportive environments plays a critical role in students' overall success and well-being.

Students' Union Buildings (SUBs) are central to this aspect of campus life. They serve as hubs for student governance, peer interaction, leadership development, recreation, and various extracurricular engagements. In well-functioning tertiary institutions, SUBs provide essential spaces where students participate in decision-making, express collective interests, and access services that complement academic learning (Oludotun, 1991). International literature also highlights the significance of student centres in promoting social integration, improving mental health, and fostering inclusive campus communities (Blimling, 2015).

However, despite their importance, SUB facilities in many Nigerian tertiary institutions do not adequately meet student needs. Studies on educational infrastructure in Nigeria have reported persistent challenges such as overcrowding, outdated facilities,

insufficient maintenance, and limited accessibility for users with disabilities (Sanusi & Shamsuddeen, 2020; Aliyu, Bashir & Hussaini, 2023). These conditions can restrict student engagement and diminish the value of SUBs as supportive spaces for academic and personal growth. Additionally, previous research on facility planning in Nigerian higher-education institutions indicates a gap between user expectations and the actual functionality of campus buildings. Ibiyemi, Adnan and Daud (2014) found that many institutional facilities lack user-centred planning, resulting in low satisfaction and reduced effectiveness. Maintenance-related concerns further aggravate this situation. According to Osuya, Adenuga and Oshodi (2023), poor maintenance management practices in government-owned institutions contribute to the rapid deterioration of buildings, limiting their capacity to support student activities over time.

Beyond physical inadequacies, the absence of systematic building performance evaluation (BPE) in many Nigerian tertiary institutions has also been identified as a major limitation. Okolie and Shakantu (2023) assert that without regular assessment mechanisms, facility managers and administrators lack reliable data to understand how well buildings, including SUBs, meet user requirements. This gap makes it difficult to implement improvements or allocate resources effectively.Given these challenges, there is a need for empirical research that evaluates the current state of facilities in Students' Union Buildings across Nigerian polytechnics. Such evaluation is essential for understanding how existing SUBs influence student satisfaction, engagement, and campus life, as well as for identifying areas requiring improvement. This study therefore examines the adequacy, accessibility, maintenance conditions, and functionality of SUBs in federal polytechnics in Southwest Nigeria. By assessing students' perceptions and documenting facility conditions, the study provides evidence-based insights that contribute to the broader discourse on improving campus-support infrastructure in Nigerian tertiary education.

II. LITERATURE REVIEW

2.1 Concept and Evolution of Student Union Buildings

Student Union Buildings (SUBs) emerged in the early 20th century as dedicated spaces to support student community life and democratic representation. In North America and Europe, SUBs are often referred to as 'student centers' or 'campus unions,' symbolizing inclusivity and active citizenship (Hankin, 2014). They provide multipurpose environments that blend social, academic, and recreational functions. According to Becker (2017), SUBs act as the 'living room' of the campus where students meet, socialize, and engage in self-directed activities. Over time, their design philosophy has evolved from simple administrative hubs into complex, student-oriented ecosystems that promote informal learning and collaboration (Ramli, 2020). In African contexts, however, SUBs have developed under significant constraints such as limited funding, poor maintenance culture, and lack of design innovation (Olanrewaju & Oyetade, 2018).

2.2 Functional Roles of SUBs in Higher Education

The functional importance of SUBs lies in their ability to bridge formal and informal learning. Hanaysha (2023) emphasized that learning is not limited to classrooms; SUBs support intellectual growth through leadership programs, peer interaction, and cultural activities. They also promote a sense of belonging and psychological well-being among students (Nuviala, 2019). Internationally, SUBs often incorporate cafés, libraries, fitness centers, and art galleries that encourage social interaction (Carvalho, 2021). In Nigeria, however, most SUBs are restricted to administrative offices, meeting rooms, and sometimes viewing centers. The lack of recreational and leisure amenities undermines their social function (Adegoke, 2017).

2.3 Facilities and User Satisfaction in SUBs

Facilities provision is central to user satisfaction in SUBs. Adeoti (2016) found a strong correlation between facility adequacy and student engagement. When SUBs are well-equipped with furniture, ventilation, and technology, students tend to participate more in extracurricular and leadership activities. Conversely, poorly maintained SUBs discourage usage and weaken institutional identity (Babalola, 2019). Studies in Malaysian and Canadian universities have shown that flexible layouts and multifunctional spaces enhance student satisfaction (Ramli, 2020). In Nigeria, findings by Olanrewaju and Oyetade (2018) revealed that over 80% of surveyed

SUBs lacked basic facilities such as Wi-Fi, restrooms, and accessibility for persons with disabilities. These inadequacies highlight a significant design and maintenance gap in Nigerian higher education infrastructure.

2.4 Challenges Facing SUBs in Nigeria

Nigerian Polytechnics face several recurring challenges in the planning and operation of SUBs. The most common are underfunding, poor maintenance, and lack of user-centered design (Olutola, 2015). Many SUBs were constructed decades ago and have not been upgraded to match current student population growth or evolving pedagogical trends. Olanrewaju and Oyetade (2018) observed that most SUBs in Nigeria operate without proper accessibility provisions, adequate lighting, or safety systems. Furthermore, the absence of renewable energy systems contributes to high operational costs and environmental inefficiency. Ramli (2020) also noted that the lack of inclusive design discourages female and disabled students from active participation in student activities. These shortcomings demonstrate the need for a sustainable architectural framework that merges aesthetics, comfort, and functionality.

2.5 Sustainable and Inclusive Design Approaches

Globally, the emphasis on sustainability in campus design has transformed the conceptualization of SUBs. Oyedepo (2020) and Carvalho (2021) stressed that energy efficiency, renewable materials, and adaptive design are crucial to achieving long-term functionality. Modern SUBs integrate daylighting, natural ventilation, and flexible furniture arrangements that adapt to diverse events. Case studies of Langara College in Canada and Embry-Riddle Aeronautical University in the United States illustrate these principles. Langara's SUB utilizes open-plan designs with extensive glazing to enhance visual connectivity, while Embry-Riddle's incorporates photovoltaic panels and smart controls to optimize energy use. In contrast, most Nigerian SUBs remain static and resource-intensive (Babalola, 2019). To achieve sustainable development goals (SDGs 4 and 11), SUBs in Nigeria must adopt eco-efficient, inclusive, and student-driven design principles.

2.6 Theoretical Framework and Research Gap

This study is guided by the Facility Management Theory (Becker, 2017), which emphasizes that building performance should align with user needs and organizational objectives. It also draws from the Sustainable Campus Design Model (Carvalho, 2021), advocating for social, environmental, and economic sustainability. Despite several studies on facility inadequacies in Nigerian tertiary institutions (e.g., Olutola, 2015; Adegoke, 2017; Babalola, 2019), there is limited empirical research focusing specifically on SUBs in Federal Polytechnics. This study fills that gap by evaluating existing facilities and providing design recommendations tailored to a new institution, Federal Polytechnic, Ayede, Ogbomoso.

III. METHODOLOGY

A descriptive and exploratory design was adopted, combining quantitative and qualitative methods. Four Federal Polytechnics, Ado-Ekiti, Ede, Ilaro, and Yaba College of Technology were selected as case studies. Primary data were collected through structured questionnaires administered to 397 students, field observations, and photographic documentation. Secondary data were obtained from journals, books, and planning documents. The Slovin's formula was used to determine the sample size from a total population of 47,890 students with a 5% margin of error as shown in the table 1 below the sample size was chosen and Slovin formula was employed using:

$$n = \frac{N}{(1+Ne2)}$$

Where,
n= Sample Size
N= Total Population (47,890)
e = error margin / margin of error (0.05)
Using a confidence level of 95%, e=0.05

$$n = \frac{47890}{[1+47890\ (0.05)2]}$$

$$n = \frac{47890}{[1+47890\ (0.0025)]}$$

$$n = \frac{47890}{[1+119.725]}$$

$$n = \frac{51390}{120.725} \qquad n=396.69 \approx 397$$

Table 1: Sample Size

S/N	Southwest Nigeria Federal Polytechnics	Population of Students	Sample Size 0.83%
1.	The Federal Polytechnic, Ilaro (Ogun State)	8,740	72
2.	The Federal Polytechnic, Ado-Ekiti (Ekiti State)	10,000	83
3.	The Federal Polytechnic, Ede (Osun State)	9,150	76
4.	Yaba College of Technology, Yaba (Lagos State)	20,000	166
	Total	47,890	397

Source: Author's Compilation (2025)

Data were analyzed using descriptive statistics such as frequency, percentage, and mean score on a five-point Likert scale. The study also conducted comparative case analysis with six SUBs, including two international examples, to extract design insights.

IV. RESULTS AND DISCUSSION

This centers on the interpretation of responses obtained from four federal polytechnics in the southwest area of Nigeria, looking at important aspects of their student union buildings. The goal is to determine current shortcomings and user priorities by methodically analyzing survey data on building size, structural efficiency, and facility maintenance, as well as overall opinions about the student union building operation. In order to ensure that future design and renovation plans directly address the lived experiences and operational demands of the polytechnic students, this assessment highlights how quantitative measurements and qualitative feedback combine to guide targeted architectural interventions.

4.1 Socioeconomic Characteristics of Respondents

The socioeconomic traits of the respondents are covered in this section. In particular, it emphasizes age and gender as important characteristics since these are thought to have an impact on how students see the usefulness of student union buildings. By including these variables, one gains a better understanding of how individual perceptions and experiences regarding the use and functionality of student union building facilities influence demographic disparities.

The background of the respondents, who were selected from four polytechnics in southwest Nigeria, shows notable tendencies, according to Table 2 below. Out of the 329 students who participated in the study, 205 were female (62.3%), while 124 were male (30.7%). This shows a significant gender gap favoring female pupils. This distribution implies that the opinions presented in the study will be more representative of the experiences of female students, which may affect how aspects like safety, comfort, and inclusivity are interpreted in student union building facilities. Accurately contextualizing the data about students' opinions of these buildings' efficacy requires an understanding of this gender gap.

The respondents are divided into four age groups: Less than 20 years, 20–24 years, 25–30 years, and above 30 years (as shown in Table 2). With 35.6% of the total, the largest percentage of students are in the 25–30 years age range. Students under the age of 20 years (20.4%), those over 30 years (24.9%), and those between the ages of 20 and 24 years (18.2%) come next. Given that over half of the respondents were 25 years of age or older, this distribution represents a mature student body. This is a significant finding because older students might interact with campus facilities in different ways and probably have more specific expectations about the usefulness, upkeep, and significance of student union structures. Their opinions are useful in determining the practical efficacy of such facilities since they may be more critical or based on prior experiences.

The student demographics at the various polytechnics vary when broken down by institution. Federal Polytechnics Ede and Ilaro both had 23.1% respondents, Ado-Ekiti contributed 20.7%, while Yaba College of Technology had the most respondents (33.1%). Interestingly, the Federal Polytechnic, Ede had the highest percentage of female students (76.3%), which further supports the data set's predominantly female representation. In contrast to the other polythecnics, Yaba College of Technology showed a

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more balanced gender mix, albeit nevertheless, having a higher proportion of female responders. The age group of 25 to 30 years old was the most prevalent across all the four polytechnics, confirming the general maturity of the study's participant student body.

Table 2: Gender and Age of Respondents

S/No	Polytechnics	Gender				Age								Total	
		Male		Female		Below 20 years		20-24		Male		Female			
		N	%	N	%	N	%	N	%	N	%	N	%	N	%
1.	The Federal Polytechnic, Ilaro (Ogun State)	28	36.8	48	63.2	15	19.7	14	18.4	26	34.2	22	28.9	76	23.1
2.	The Federal Polytechnic, Ado-Ekiti (Ekiti State)	36	52.9	32	47.1	14	20.6	18	26.5	22	32.4	10	14.7	68	20.7
3.	The Federal Polytechnic, Ede (Osun State)	18	23.7	58	76.3	16	21.1	8	10.5	30	39.5	22	28.9	76	23.1
4.	Yaba College of Technology, Lagos State	42	38.5	67	61.5	22	20.2	20	18.3	39	35.8	28	25.7	109	33.1
Total		124	37.7	205	62.3	67	20.4	60	18.2	117	35.6	82	24.9	329	100.0

Source: Author's Fieldwork (2025)

4.2 Student Union Building Facilities

From Table 3, the vast majority of respondents (97.6%) attested to the existence of a purposely built Student Union Building (SUB) at their schools, suggesting that these facilities are common in all of the polytechnics that were examined. This almost ubiquitous accessibility shows that the Student Union Building is seen as an essential part of these polythecnic's student infrastructure. Because of its extensive use, it offers a reliable framework for assessing how well extracurricular activities, student engagement, and the general efficacy of such places are, in promoting the welfare and development of students. The small percentage of students (2.2%) who stated that they did not have a SUB is indicative of either a lack of awareness or a few isolated instances of inadequate infrastructure, but it does not substantially alter the overall trend. Consequently, the widespread availability of SUBs creates a common framework that allows for the relevant comparison and analysis of students' perspectives and experiences.

Out of those surveyed, Table 3 below shows that 56.8% were actively participating in events held in the Student Union Building, whereas 43.2% did not. With a sizable percentage of students either not participating or possibly not knowing about events happening in the SUB, this indicates a modest degree of participation. It draws attention to the necessity of more inclusive programming or improved methods for involving students.

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The most often reported element among the SUB's accessible amenities was the common area (34.3%), which was followed by "others" (30.4%), which could include a variety of unlisted amenities. Essential services like libraries (0.3%), cafés (0.0%), and gyms (0.9%) were either scarce or nonexistent, and traditional facilities like offices (7.9%), conference rooms (5.7%), and reception spaces (4.5%) were available, but in considerably smaller amounts. This suggests that the SUBs have a narrow spectrum of functionality and frequently lack essential resources that could increase their usefulness. More so, Table 3 shows the most frequently given explanation or reason why students do not participate in, or enter SUB activities was "others" (57.8%), which suggests a variety of institutional or personal problems. Just 1.5% of respondents cited inaccessibility as a cause, whereas, the most significant ones are lack of leisure activities (14.9%), lack of time (14.3%), and inadequate space (11.6%). This implies that the primary obstacles to student involvement are not physical access, but rather programmatic and infrastructure shortcomings.

The viewing center was the most often cited recreational facility (46.2%), suggesting a high preference or emphasis on visual enjoyment. The availability of other leisure activities, such as table tennis (8.5%) and indoor gaming (10.6%), was lower. Remarkably, just a small percentage (1.2%) of pupils mentioned the existence of a football field, and none claimed having access to a gym or swimming pool. This emphasizes there is little variety in SUBs' recreational offerings, which could lead to lower participation rates and general underutilization.

Table 3: Student Union Building Facilities

Variable	Response		Total	Percentage (%)		Total
	Yes	No		Yes	No	
Availability of Student Union Building	321	9	329	97.6	2.2	100.0
Participation in Students Union activities	187	142	329	56.8	43.2	100.0
Available Facilities in the Student Union Buildings	Responses			Percentage (%)		
i. Offices	26			7.9		
ii. Meeting Room	19			5.7		
iii. Common Area	133			34.3		
iv. Reception	15			4.5		
v. Cafeteria	16			4.9		
vi. Library	1			0.3		
vii. Café	0			0.0		
viii. ATM	16			4.9		
ix. Recreational Facilities	3			0.9		
x. Others	100			30.4		
Total	329			100.0		
Reasons for not entering or participating in any activity in the SUB						

i. Not Accessible	5	1.5
ii. Inadequate spaces	38	11.6
iii. Lack of Recreational Activities	49	14.9
iv. Lack of Time	47	14.3
v. Others	190	57.8
Total	329	100.0
Available Games in the Student Union Building		
i. Table Tennis	28	8.5
ii. Indoor Games	35	10.6
iii. Viewing Centre	152	46.2
iv. Swimming Pool	0	0.0
v. Football Pitch	4	1.2
vi. Gymnasium	0	0.0
vii. Others	110	33.4
Total	329	100.0

Source: Author's Fieldwork (2025)

Dedicated Spaces for Extra-Curricular Activities

Table 4 shows that the majority of respondents (54.4%) indicated that their polytechnics had specific areas for extracurricular activities like clubs and organizations, whilst 45.6% indicated that these areas are not available. This implies that even while more than 50% of students have access to organized settings for extracurricular activities, a sizeable fraction do not. The narrow difference draws attention to disparities between schools and indicates that better facilities are required to promote whole-person student growth and a lively campus community.

Also, from the same Table 4, 52.3% of respondents stated that the Student Union Buildings have technology conveniences such as projectors, charging connections, and Wi-Fi, whereas 47.7% did not. This little disparity suggests that technology resources are distributed rather evenly, meaning that though, some institutions are implementing contemporary comforts to improve the SUB's functionality, others are falling behind. The nearly equal distribution points to a chance for institutional improvements to guarantee that every student gains an equal share from the digital resources that facilitate communication, learning, and student-led projects.

Table 4: Dedicated Spaces for Extra-Curricular Activities

Question	Response		Total	Percentage (%)		Total
	Yes	No		Yes	No	
Dedicated spaces for extracurricular activities (e.g clubs, societies)	179	150	329	54.4	45.6	100.0
Technological amenities available at students' union building (e.g., Wi-Fi, charging ports, and projectors)?	172	157	329	52.3	47.7	100.0

Source: Author's Fieldwork (2025)

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Adequacy of Facilities

Table 5 shows that the usage profile of the Student Union Building is strikingly low: only 5.5% of students use it daily and 16.7% weekly, while 26.1% visit monthly, 22.2% occasionally, and a frightening 29.5% never entered it at all. This distribution shows that the building is not efficiently meeting the everyday demands or rhythms of the student body. Misaligned programming, inadequate navigation, unwelcoming or divided interiors, and maybe a site that is cut off from important pedestrian routes or centers for student activities might all be indicators of such underutilization. This disparity eventually jeopardizes the Union's financial viability, reduces chances for fostering community, and erodes campus student involvement.

Table 5: Usage profile of the Student Union Building

Variable	Daily	Weekly	Monthly	Rarely	Never	Total (%)
Usage of Student Union Building	18 (5.5%)	55(16.7%)	86 (26.1%)	72 (21.9%)	98 (29.8%)	100

Source: Author's Fieldwork (2025)

According to Table 6, responses regarding the adequacy of the SUB's size show an overwhelming level of dissatisfaction. With an AWV of 1.49, the majority rated the building as either *"Not Adequate"* or *"Not Adequate at All."* This indicates that existing spatial capacities are insufficient for the diverse programs expected of a student union resulting in overcrowded lounges, congested meeting areas, narrow circulation paths, and limited study or event spaces. The seating survey shows a critically low AWV of 1.79, with the vast majority rating the seating as *"Not Adequate"* or worse. This suggests deficiencies in quantity, placement, ergonomics, layout flexibility, and variety. Existing fixed seating arrangements likely restrict mobility and diminish comfort, discouraging long stays or collaborative use.

The restroom facilities recorded a very low AWV of 1.51 in Table 6, reflecting over 90% user dissatisfaction. Students perceive substantial problems related to capacity, hygiene, ventilation, privacy, and accessibility, all of which hinder daily use and raise broader issues of comfort and inclusivity. Security adequacy recorded an AWV of 1.58, indicating widespread lack of confidence in safety measures. Students identify weaknesses in surveillance, lighting, emergency preparedness, and controlled access. With an AWV of 1.59 , students overwhelmingly consider the SUB's operating hours inadequate. Limited service availability restricts access during peak academic and extracurricular periods, undermining the building's function as a genuine round-the-clock student resource.

Facility maintenance also shows strong dissatisfaction, with an AWV of 1.52 , indicating recurring issues with infrastructure upkeep, delayed repairs, and inaccessible service routes. Cafeteria adequacy received an AWV of 1.45, among the lowest ratings. Over 90% of respondents rated it *"Not Adequate"* or worse, revealing concerns related to overcrowding, hygiene, limited food variety, insufficient seating, and poor spatial organization. ATM facilities, with an AWV of 1.47, exhibit severe inadequacy, with respondents reporting poor accessibility, long queues, insufficient units, and unfavorable placement. Recreational facilities show one of the lowest satisfaction patterns with an AWV of 1.39. More than 90% rated them inadequate, indicating a severe deficit in quality, availability, and accessibility.

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Table 6: Adequacy of Facilities

Variable	Very Adequate (5)	Adequate (4)	Indifferent (3)	Not Adequate (2)	Not Adequate At all (1)	TWV	TWV/f	AWV
Size of SUB	4	15	10	82	218	492	1.49	98.4
Seating Area	3	11	16	168	131	589	1.79	117.8
Rest Room	4	11	10	98	206	496	1.51	99.2
Security	5	13	11	115	185	522	1.58	104.4
Operating Hours	7	15	12	100	195	526	1.59	105.2
Facilities Maintenance	4	10	15	96	204	501	1.52	100.2
Offices	6	13	15	106	189	533	1.62	106.6
Meeting Room	6	9	16	101	195	511	1.55	102.2
Common Room	7	11	13	110	188	526	1.60	105.2
Reception	4	15	16	100	194	523	1.60	105.2
Cafeteria	6	9	2	104	198	478	1.45	95.5
Library / Study Area	7	7	11	100	204	500	1.52	100
Cafe	5	9	13	93	209	495	1.50	99
ATM	5	6	14	87	217	482	1.47	96.4
Recreational Facilities	5	6	15	61	242	458	1.39	91.6

Source: Author's Fieldwork (2025)

4.5 Students' Satisfaction with Facilities

From Table 7, the mean satisfaction score for cleanliness of the SUB is extremely low (TWV/f = 1.48), with an AWV of 97.4. This clearly indicates that the overwhelming majority of respondents fall within the "Not Satisfied" and "Not Satisfied at all" categories. Such a low score points to a systemic hygiene and maintenance failure across the surveyed polytechnics. Students are likely encountering unclean environments—ranging from overflowing bins and stained floors to persistent odors and poor indoor air quality. These failures are commonly rooted in inadequate architectural planning, particularly in the areas of waste disposal logistics, building ventilation, and material choice. Buildings without well-distributed waste collection points or efficient circulation pathways make cleaning difficult and allow refuse to accumulate in corners. Similarly, insufficient natural or mechanical ventilation such as lack of operable windows, cross-ventilation routes, or passive cooling systems results in stuffy, humid interiors that trap odors.

Satisfaction with seating areas is similarly low, with a mean score of 1.85 (AWV 122.2). This indicates widespread dissatisfaction with the available seating within campus common areas. The low rating suggests inadequate quantity of seats, poorly maintained furniture, or uncomfortable ergonomic design. Students may frequently find themselves standing, sitting on the floor, or using makeshift alternatives.

Restroom satisfaction also shows a critically poor score (mean = 1.49; AWV = 98). This reflects students' strong dissatisfaction with restroom quantity, cleanliness, ventilation, and general usability. Restrooms are likely overcrowded, poorly maintained, and lacking in proper ventilation or accessible design. Security within the SUB also received a very low satisfaction rating (mean = 1.52; AWV = 100.4). This suggests that students perceive the security environment as inadequate possibly due to poor visibility, lack of surveillance systems, or insufficient security personnel.

Operating hours were rated poorly as well (mean = 1.60; AWV = 105.2). This reveals that many students cannot access key services or facilities when needed,

particularly outside regular hours. Contributing factors may include inadequate lighting, unreliable power supply, or security concerns that limit late-evening or early-morning access. Facilities maintenance received a mean satisfaction score of 1.54 (AWV = 101.8), reflecting chronic neglect across campus buildings. Issues likely include broken fixtures, worn-out surfaces, and delayed repairs often the result of poor material selection and inaccessible service areas.

Office spaces recorded a slightly higher but still poor mean score of 1.52 (AWV = 100.2). Although marginally better than other facilities, dissatisfaction remains high. Problems likely include overcrowding, poor lighting, and non-ergonomic arrangements. Meeting rooms also performed poorly (mean = 1.61; AWV = 106.4). This suggests inadequate seating capacity, poor acoustics, poor ventilation, and lack of technological amenities. Reception areas similarly scored very low (mean = 1.62; AWV = 106.6). Respondents likely experience discomfort, confusion, and poor aesthetics upon entry. The cafeteria also saw a low satisfaction rating (mean = 1.57; AWV = 103.4), signaling major issues related to poor spatial planning, inadequate ventilation, and hygiene concerns. Study areas, café spaces, and ATMs similarly reveal low mean satisfaction scores of 1.501, 1.54, and 1.46 respectively, reinforcing the overall pattern of dissatisfaction across SUB facilities. Poor seating, lighting, ventilation, and spatial allocation may all contribute to these outcomes. These issues point to the need for comprehensive architectural upgrades involving spatial reconfiguration, improved daylighting, ergonomic setups, and safe, accessible circulation pathways.

Table 7: Students' Satisfaction

Variable	Very Satisfied (5)	Satisfied (4)	Indifferent (3)	Not Satisfied (2)	Not Satisfied at all (1)			
Cleanliness of SUB	6	16	15	56	236	487	1.48	97.4
Seating area	8	12	15	184	110	611	1.85	122.2
Rest room	6	8	18	77	220	490	1.49	98
Security	5	7	16	102	197	502	1.52	100.4
Operating hours	5	15	17	100	190	526	1.60	105.2
Facilities maintenance	7	7	19	112	184	509	1.54	101.8
Offices	8	12	19	86	204	501	1.52	100.2
Meeting room	6	8	24	107	184	532	1.61	106.4
Reception	8	7	23	98	193	533	1.62	106.6
Cafeteria	6	10	17	100	196	517	1.57	103.4
Library / Study area	6	8	17	83	215	494	1.501	98.8
Café	6	5	24	90	204	506	1.54	101.2
ATM	3	4	23	84	215	483	1.46	96.6

Additionally, from table 8 below the survey shows that only 19.2% of respondents (likely + very likely) would recommend the Student Union Building (SUB) for usage, while a significant 48.3% (very unlikely + unlikely) would not. Additionally, 32.5% remained neutral, indicating uncertainty or indifference toward the facility's usefulness. This pattern reveals a generally low level of endorsement, suggesting that the SUB is perceived as under-performing in comfort, accessibility, and relevance to student needs. The lack of enthusiasm implies dissatisfaction with factors such as inadequate maintenance, poor spatial organization, limited resources, or an uninspiring atmosphere, all of which diminish the building's appeal and overall functionality.

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Table 8: Recommendation of SUB for usage

Variable	Very Unlikely	Unlikely	Neutral	Likely	Very Likely	Total (%)
Recommendation of SUB for usage	78 (23.7%)	81 (24.6%)	107(32.5%)	46 (14.0%)	17 (5.2%)	100

Respondents' feedback implicitly calls for comprehensive renovation and reprogramming of the SUB to make it more engaging, user-friendly, and functional. Improvements should focus on creating multi-purpose zones for study, recreation, and social interaction, supported by enhanced ventilation, lighting, and digital infrastructure. The inclusion of comfortable seating, proper signage, and aesthetic upgrades would also help transform the SUB into a space students can take pride in and actively recommend.

Ultimately, this suggests that revitalizing the SUB through thoughtful architectural design, better management, and student-centered planning is crucial. By aligning the facility's functions with students' academic and social expectations, the university can rebuild confidence in the SUB's role as a central hub for campus life, increasing both satisfaction and recommendation levels in future evaluations.

Table 9: Students' Satisfaction II

Variable	Responses		Percentage (%)		Total
	Yes	*No*	Yes	No	
	120	209	36.5	63.5	100
Facilities' contribution to Academic & social experience	129	200	29.2	60.8	100
Challenges in Accessing SUB Facilities	130	199	39.5	60.5	100

From table 9 above, a notable 63.5% of respondents indicated discomfort in using the resources within the Student Union Building (SUB), suggesting significant deficiencies in its spatial organization, environmental comfort, and functionality. This high level of dissatisfaction implies that the facility may be overcrowded, poorly ventilated, inadequately furnished, or lacking in efficient layout and resource accessibility, all of which undermine its role as a central hub for student interaction, study, and recreation. The minority (36.5%) who reported comfortable use may only experience satisfactory conditions during off-peak hours or in better-maintained sections.

The data reveal that only 29.2% of respondents agreed that the Student Union Building (SUB) facilities positively contribute to their academic and social experience, while a striking 60.8% disagreed, indicating widespread dissatisfaction with how effectively the facilities support student engagement and learning. Similarly, 39.5% reported facing challenges in accessing SUB facilities, compared to 60.5% who did not, suggesting that while accessibility issues are present, the more critical concern lies in the quality and relevance of the spaces and resources provided. These figures highlight that the SUB, though physically accessible to many, may be functionally underperforming offering limited academic value,

inadequate social spaces, or outdated infrastructure that fails to meet students' evolving needs.

Based on the survey findings, respondents clearly emphasized the need for improvements in the spatial design, comfort, and functionality of student facilities, particularly the cafeteria, library, and Student Union Building (SUB). The high dissatisfaction rates regarding the cafeteria and library highlight demands for better spatial planning, increased seating capacity, improved ventilation, and enhanced hygiene standards. Respondents implicitly recommend that these facilities be expanded, reorganized, and equipped with adequate lighting and durable, easy-to-maintain materials to create cleaner, more comfortable, and health-conscious environments suitable for dining and studying.

For the Student Union Building, respondents' feedback reveals a strong call for user-centered redesign and modernization. The majority expressed discomfort in using its resources, suggesting the need for ergonomic furniture, efficient circulation, and designated zones for study, social interaction, and administrative services. Improved air quality, lighting, and accessibility were also among the implicit recommendations, as these are vital to ensuring that the SUB serves as a functional and inclusive space for all students. Respondents further highlighted the importance of enhancing digital resources and maintenance practices, which would support both academic and social activities within the building.

Overall, the collective recommendations point toward a comprehensive strategy to upgrade campus facilities through thoughtful architectural planning and sustainable design interventions. This includes integrating modern technology, flexible layouts, proper ventilation systems, and noise control measures across all major student spaces. By adopting these recommendations, the institution can create environments that not only promote health, safety, and comfort but also enhance academic productivity, foster social interaction, and reflect the evolving expectations of a growing student population.

CONCLUSION AND RECOMMENDATIONS

This study concludes that facilities in Students' Union Buildings across Federal Polytechnics in Southwest Nigeria are grossly inadequate, undermining student engagement and campus experience. The study recommends: (i) adopting sustainable and energy-efficient design principles; (ii) ensuring accessibility for persons with disabilities; (iii) incorporating ICT infrastructure and renewable energy systems; (iv) providing flexible multipurpose areas; and (v) implementing continuous maintenance programs and user feedback mechanisms to enhance long-term facility performance.

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