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USERS' SATISFACTION STUDY OF ACADEMIC BUILDINGS IN YABA COLLEGE OF TECHNOLOGY, YABA LAGOS, NIGERIA

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ABSTRACT

The paper assesses the level of satisfaction derived by the users of academic buildings in Yaba College of technology. The research which is largely field based had questionnaires randomly administered on a total of 290 respondents in a total of nine buildings that were equally randomly selected. Data solicited include respondent's data and level of satisfaction derived by them from using the building in question using the five scale likert scale method. Variables assessed in relation to the selected buildings include; functionality, privacy, inter-building relationship, environmental quality, maintenance and management, safety and security, conduciveness and functionality. The study reveals that users of the institutional buildings merely derive a fair or an average level of satisfaction in using these buildings. Safety and security, environmental quality, maintenance and management, conduciveness, privacy, functionality were rated so low among the users of the building. While variables like accessibility, inter-building relationship and natural ventilation and lightning were rated high among the users of these buildings. The paper in its conclusion recommends for the installation of close circuit camera in strategic places in and around the campus, formulation and implementation of maintenance and management policies for the buildings and the need to make existing and proposed buildings accessible to the physically challenged among several others.

INTRODUCATION

Background to study

Yaba College of Technology, formerly Yaba Higher College is the oldest tertiary institution in the Nigeria Sub Saharan region. With full time enrolment of over 20,000 students, the institution provides among others, technological education. One of the supra-system that makes up the institution is its buildings which exist in different sizes, densities, design, structure and character. As the first tertiary institution in the country, the institution enjoys a sizeable number of patronage in and outside the shores of the country comprises of both the physically and non- physically challenged staff and students who are in quest for middle level manpower. A patronage which according to Okogie, 2009 will continually be on the increase. It is expected that infrastructure like buildings should be designed in a manner that it will satisfy the need of every users irrespective of their physio - heterogeneous state. Buildings in the opinion of Okolie and Ogumoh, 2013 form a significant part of infrastructural components in higher education system as such must be designed to fulfil not only the visions and aspirations of the institutions but equally that of its users. Buildings in the educational establishments are enablers, as such their design should be consumers or users oriented as this is critical for educational effectiveness. Heitor, 2005 opines that the ability of any building to successfully accomplished its purpose of design measures the degree of its success. Building production like every other economic goods is incomplete until it gets to its final consumers- the users, hence its degree of success can only be measure by the degree of satisfaction its users derive from it. A cursory look at the existing buildings of the study campus suggests a narrow and restrictive functional and design framework of the buildings, inadequate in term of, space, functionality, building relationship, existence of building supporting facilities among others. This suggests that the normative building requirements

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of its users are grossly compromised. Considerable considerations could not have been said to have been given to the users and consumers of these buildings. The demographic characteristics of the existing consumers and the potential ones are grossly ignored in their design and maintenance framework. For instance Okesoto and Sherif-deen, 2012 reported that out of the existing total of 51 buildings on the campus only 3(6%) of the buildings are accessible to the physically challenged users. The authors equally observed that significant variation exits between the existing staff offices and the standard requirements. This can only suggest that the design, construction and implementation of building development plans on the campus are at variance with the wishes and aspirations of both staff and students. The study therefore primarily concerned itself with the assessment of the level at which the buildings on the campus comply with the satisfaction level or requirements of their users with the view of improving on the users satisfaction for subsequent building plan and development.

Related studies

Over the years, there have been considerable number of studies on users satisfaction; some in housing, some in institutional buildings with all focusing on consumers needs and perception. O'Sulvian *et al*., 2004 and Zanuzdana *et al*., 2012 opine that the term user satisfaction and its components are complex to describe in concrete terms because of the absence of standards capable of measuring users' satisfaction. This therefore suggests that the users satisfaction study is very broad and differs for different types of buildings for instance Mohammad *et al*., 2013 like this study focus their work on buildings in higher educational institutions. Hui, 2013, focuses on shopping mall buildings; Perez *et al*., 2001 like Amole, 2009, Howley, 2010, and Afon 2006 focus their work on residential buildings, while Appel –Meulenbroek *et al*., 2011 had their attention on office users. All of these studies have obviously enriched scholarly views on the understanding of factors and forces that mould and influence satisfaction of the users of such buildings. For instance, Bauer, 1957, Young and Willmoth 1957, Beyer, 1967 and Guns, 1969 all concluded that beyond engineering considerations, building design and development should consider factors like social, behavioural, cultural and demographic characteristics of its users.

Building design and development should reflect the users demand and needs in addition, enhance their productivity. Okolie and Ogumoh, 2013 were of the view that an efficient building should be able to answer the question of how well is the building suited for the activities of their users? A question targeted at fit for purpose answer, one of the major characteristics identifies by OECD, 2006. This term addresses the fit between the building and its activities. The Organisation for Economic Cooperation and Development (OECD), 2006 document makes it mandatory for buildings to directly support activities for which it is designed and built. At the same time responsive to the specific needs of its organisation and its occupants in both quantitative and qualitative terms. Building users satisfaction embraces space needs and adequacy, system performance, durability and routine maintenance of the building and its elements, optimization of energy use, safety and protection, utility conservation for example water waste management and day lighting, enhancement of indoor environmental quality and site potential((OECD, 2006). The success of every building or aptly put, the main attribute of every good building is its ability to meet the satisfaction of its users. Utility of consuming building must therefore be very high, this therefore makes it necessary that building of any magnitude and uses should be designed in a manner that its users will feel a sense of well being, comfortable, secured and healthy. In their work, Meir *et al*., 2009, Abbaazadeh *et al*., 2006 and Edwards, 2006, it was identified that the focus of every building user satisfaction should include, layout, finishing, thermal comfort, air quality, lighting, acoustic quality and privacy, cleaning and maintenance. The study therefore applies the submissions of these various studies in assessing the level of satisfaction derived by the various users of institutional buildings in Yaba College of Technology, Lagos- Nigeria.

Study Area

Yaba College of Technology is the oldest higher educational institution in Nigeria. The institution is situated to the east of Lagos Metropolis, western Nigeria. It was established in 1947 as Yaba Higher College. In 1981 the College introduced a School system with a total grouping of five Schools and twenty departments as at 1986. Presently the College has a total of eight Schools with 35 departments running about seventy two accredited programmes which cut across National and Higher National Diploma, Post-Graduate and Professional Diploma programmes and certificate courses. Presently the College has a full time student enrolment of over 15,000 students and with staff strength of over 2000. It occupies a total land area of 16.4 hectares comprises of academic and residential areas.

MATERIALS AND METHODS

The study examines the satisfaction level derived by the users of the academic buildings within the institution. Users targeted at include, staff, students and visitors. Questionnaire survey method was adopted. The study institutional buildings are 49, these were group into location cluster and a random sampling of 20% representing a total of 9 buildings were taken from the clusters ensuring that a minimum of one building is selected from every cluster. Selected buildings were randomly done with the use of ballot box method. Survey count of daily users to each of the randomly selected buildings was made over a period of three days (Monday, Wednesday and Friday) between the hours of 8.00a.m and 5.00 p.m. with the help of the HND 2 Students (2013/2014 class) of the Urban and Regional Planning (URP) department of the institution. The survey revealed an average total of 2,915 users as a whole distributed as shown in table1.1. A sample proportion of one user out of every 10 users in each selected building was taken translating into a sample proportion of 10 % (see table 1.1), giving a sample size of 290 respondents. With the assistance of the HND 1 URP students (2013/2014 Session), questionnaires were administered on the users, Queries raised include, respondent data, character and external appearance of buildings, environmental quality, safety and security and general level of satisfaction among others. Observation was equally made on the selected buildings with the aid of building

survey sheet to examine their existing conditions and their state of maintenance. Respondent's opinion were rated using likert scale of five. The survey method was complemented with the desk top approach and results obtained were descriptively analysed and presented.

Table 1.1. Sampled population of study

S/N	Buildings	Average Daily Users	10% Sample Size
1	TTP	291	29
2	Engineering	1077	107
3	Science and Technology	286	29
4	Art	61	6
5	New Environmental	170	17
6	EDP	90	9
7	Secretarial Studies	169	17
8	SMBS	690	69
9	Concrete Laboratory	80	8
	Total	2915	290

Source: Authors deduction

RESULTS AND DISCUSSION

The respondents

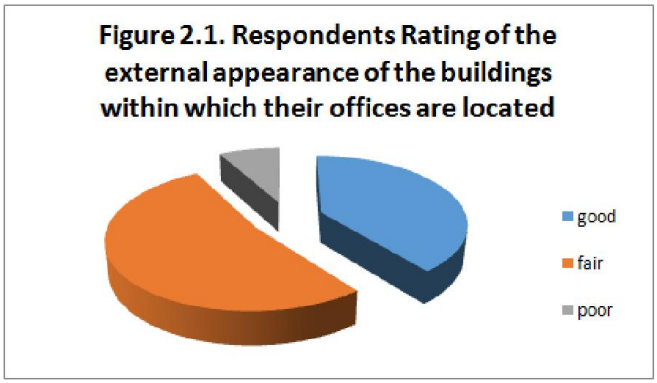
A total of 290 respondents had questionnaire administered on them and the whole number responded to the questions raised in the questionnaire. Out of this number 160 (55%) of the respondents are female and 130 (45%) of the respondents are males with an average age of 29years with a standard deviation of 11years. A total of 230 (79%) of the respondents are students of which 104 (45%) of them are of Higher national diploma programme and 126 (55%) of them are of National Diploma Programme while 60 (21%) of the respondents are staff, this could have been responsible for the high value of the standard deviation of the sampled mean age.

Office and classroom assessment

A total of 36 (60%) of the staff respondents indicated that they shared office with their colleagues while 24(40%) of the staff respondents indicated that they solely occupy their offices. A total of 201(87%) of the students indicated that they have their classrooms solely dedicated for their departmental use only, while 29 (13%) of them indicated that they share their classrooms in the building with other students from other departments, though of same school. The implication of this is that among staff, significant proportion of them does not have private or personal control over their offices, while a significant proportion of the student population has absolute control of their classrooms, determining who enters and does what at available time.

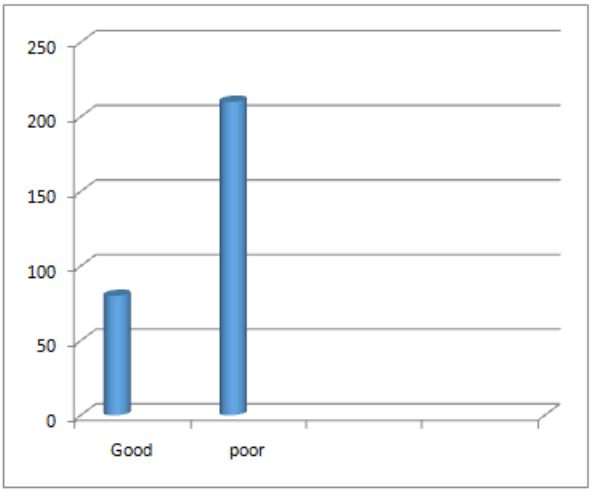
Character of buildings' offices and classrooms

A total of 187(64%) of the respondents indicated that their classrooms/ offices are well ventilated, while a total of 103(26%) were of the opinion that their offices / classrooms are poorly naturally ventilated. Over 50% of the respondents responded that there exist structural defects in the buildings where their offices/ classrooms are situated. Respondents were asked to rate their level of satisfaction in relation to the external appearance of the buildings within which their offices/classrooms are situated. A total of 113(39%) rated their buildings as having good external appearance. 151(52%) of the respondents rated their buildings as having fair external appearance (see figure 2.1) while 23(8%) rated their buildings as having poor external appearance.



Source: Field survey, 2014

Accessibility of the buildings to its users was considered to be excellently adequate among its users, layout and arrangement of offices and classrooms were equally of excellent rating among the respondents. This could be attributed to the compact nature of the campus. Satisfaction derived from supporting facilities such as toilets, electrical and mechanical installations were equally measured. A total of 80(28%) of the respondents opined that the electrical and mechanical fittings are of good satisfaction, while a total of 210(72%) were of the opinion that they are of poor satisfaction (see figure 2.2). A total of 223(77%) of the respondents were of the opinion that the existing toilet facilities in their buildings are highly accessible, however a total of 236 (81%) indicated that the toilet facilities are of poor condition in term of functionality and maintenance and a total of 54 (29%) were of the view that the toilet facilities are in mere state of fair conditions.



Source: Field survey, 2014

Figure 2.1. Respondents perception of the state of electrical and mechanical fittings in their buildings

Environmental quality

Flooding, existence of foul odor resulting from the poor state of toilet and mechanical facilities, absence of green and noise

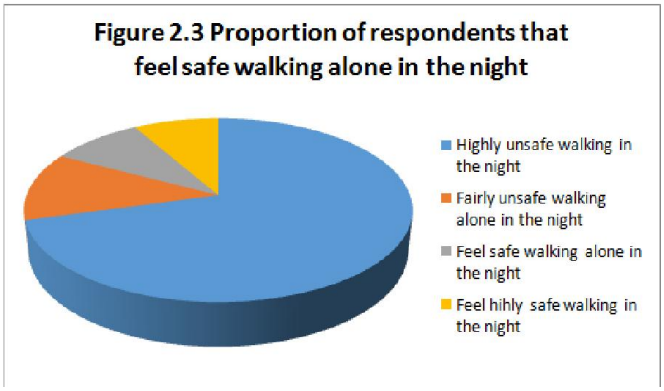
pollution from the generators that littered the campus are the major environmental issue reported by the vast majority of the respondents. A total of 196 (68%) of the respondents rated the environmental condition of their offices and classrooms as generally been poor.

Inter Building Relationship

A total of 210 (72%) of the respondents reported that they rarely visit other buildings, when they do, it takes them between 5 and 15 minutes. This could have resulted from the collegiate system the institution operates couple with the compact nature of the campus. Over 70% of the respondents rarely visit the recreation centre like the sport centre, this may be unconnected with the over centralisation of this facility.

Safety and security

Among the 290 respondents, a total of 205 (71%) claimed they feel unsafe walking alone in the night around the buildings where their offices and classrooms are located, 35(12%) of them feel fairly unsafe doing same, a total of 26 (9%) feel safe walking alone in the night in and around building where there offices and classrooms are situated and 24 (8%) feel highly safe walking alone in the night (see figure 2.3). This high sense of insecurity in the night time is unconnected with poor illumination of the outer parts of most of the building on campus.



Source: Field survey, 2014

Summarily put, a total of 225 (78%) of the respondents made a declaration that their offices and classrooms are generally unsafe, a total of 46(16%) declared that that their offices/classrooms are fairly safe while 19 (6%) of the respondents declared their classrooms/offices as being safe.

Levels of users satisfaction

Respondents were asked to rate their offices/ classrooms using the 5 likert scaling method. This is to determine the overall level of users' satisfaction in the sampled 9 buildings within the college. Variables measured include; functionality, privacy, security and safety, building character, state of facilities and services, inter-building relationship, maintenance and management, conduciveness in relation to its intended purpose, natural ventilation and lightning and accessibility. The assessment was obtained by computing the mean response of the respondents. Results obtained are as contained in Table 2.1.

S/N	Variables	Weighted mean satisfaction
1	Functionality	3.0
2	Privacy	3.0
3	Security and safety	3.0
4	Building character	3.0
5	State of facilities and services	3.0
6	Inter building relationship	2.0
7	Maintenance and management	3.0
8	Conduciveness	3.0
9	Natural ventilation and lightning	2.0
10	Accessibility	2.0
	Cumulative weighted average = 3.0 (Fair level of satisfaction).	

Source: Authors computation

NB: Highest level of satisfaction is 1 the lowest being 5

Table 2.1 above shows the average weighted value of the overall level of satisfaction derived by the users of the selected studied buildings in the College. Observation from the table reveals that the least score of 2.0 calculated infers a high level of satisfaction for; inter building relationship, natural ventilation and lightening and accessibility in the selected buildings. A weighted average score of 3.0 for the selected buildings suggests a fair level of satisfaction. Implying that utility derived by the users of these buildings is at an average level suggesting that there is the need for improvement.

Conclusion and recommendations

The study has succeeded in assessing the level of satisfaction derived by the users of some selected buildings in Yaba College of Technology. A s a survey research it could be inferred that the users satisfaction derived from the buildings on the campus weighted on a likert scale of 5 merely provide a fair level of satisfaction to its users, suggesting that the level of satisfaction is at low ebb. In view of this the paper recommends as follows;

1. Subsequent buildings in the College should be made functional, enhance privacy of its users most especially staff offices. Classrooms should also be able to achieve this as this will encourage the protection of such spaces.
2. Installation of close circuit camera in and around the buildings becomes expedient
3. Illumination of the entire environment of the campus must be given priority
4. Regular maintenance and cleaning of available toilets
5. Existing buildings and subsequent ones should be made easily accessible to the physically challenged users
6. There is urgent need to put maintenance policy framework in the College
7. The need to consciously preserve exiting green and grow new ones.

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