

# Physical Environment Quality and Utilization of Information Resources in Akwa Ibom State University Library

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**Abstract** This paper examines the influence of library physical environment on utilization of information resources in Akwa Ibom State University. It presents conceptual framework on the variables under studied. The sample size for the study was 390 respondents (comprising 280 final year students and 110 academic and non-academic staff) derived from 1948 population from the six (6) academic faculties in Akwa Ibom State University. The instrument used for data collection was a three-part researcher-developed questionnaire and the data collected were analyzed using descriptive and inferential statistics. The descriptive statistics used were bar chart, frequency and simple percentage to answer the three (3) research questions developed in the study while the inferential statistics used was t-Test analysis to test the one (1) hypothesis. The research reveals that majority of respondents do not choose library as the preferred location for study and research due to certain factors like poor library design, limited space, poor organization of library resources, no aesthetics, no cafeteria, too noisy, etc. The result of the analysis shows that library physical environment has no significant influence on utilization of information resources in AKSU library. Further, the findings of this study have both theoretical as well as practical implications for library management, policy makers in the university. Recommendations based on the findings were also highlighted.

**Keywords** Physical Environment, Academic Library, Information Resources

## 1. Introduction

The word “physical environment” generates many different responses from different schools of thought. To some it is seen as the natural world formed by an ecological community and fit to live in or inhabitable. To others it is a particular political or social setting, arena or condition. Physical environment is referred to all the elements that are capable of affecting a system or its inputs and outputs [1]. That means, it encompasses all the circumstances, people, things, and events surrounding an organization which can influence services quality and productivity. Be that as it may, every organization including library operates within a physical environment.

Library as an organization is saddled with the responsibilities of providing quality information resources and services to support the mission of the parent institution. In other words, libraries situated in tertiary institutions,

known as academic libraries, perform common functions to support the mission of higher institutions. These libraries are expected to provide adequately books, journals, government publications, references sources, newspapers in both print and non-print formats. Such provisions are made in support of learning, teaching, research, and personal development. Consequently, libraries have to provide quick and equal access to the information resources through quality services delivery; partnership with other libraries in the bid to develop a network of library resources that are at disposal of library users irrespective of their location. The central point here is that libraries select, acquire, and organize relevant information resources as well as engage in several services to guarantee effective use of the information resources.

The information resources cannot be effectively utilized if the library physical environment is in disarray. Although, what constitutes library physical environment is complex. But all components of the library capable of supporting, and influencing library activities and its usage could be regarded as library physical environment. Such components could be subsumed under spatial layout and functionality; ambient conditions; service providers; service process; signs, symbols, and artifacts [2]. What also constitutes library physical environment include the design of the library building, reading space, parking lots and walkways, common

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rooms, lighting, decorations, colour of the walls, room temperature, signages, facilities, and people [3].

Observations shown that most libraries are faced with daunting tasks of making library environment comfortable enough to create the desired feelings that could drive users' responses to the library, better still enhance its usage. Apart from the library environment, the apathy to effective utilization of library resources may not be unconnected with the plethora of information available on the Internet; buying of lecture notes and recommended textbooks; low reading culture; and other distracting factors that may compete for students' attention. That means, libraries must be conscious of the fact that the attention of students, teaching and non-teaching staff must be competed for amidst the compelling factors. Among all the factors that contribute to this drift in library patronage, library environment remains the overpowering influence because the service environment has such important effects on people and their behaviour. In assertion, [4] note library physical environment as one of factors that could change users' perception of the library. Therefore, it becomes imperative to study empirically the influence of library physical environment on the utilization of information resources in Akwa Ibom State University.

## 2. Background Information on the Study Area

The Akwa Ibom State University (AKSU) was initially established as Akwa Ibom State University of Technology (AKUTECH) through a Bill signed into Law on 16<sup>th</sup> April 2003. Some years later, the name, concept and philosophy of the university was changed to provide a type of education that is not only technically-based. Hence, a conventional university was established as AKSU through a Bill signed into Law on June 2009. AKSU library began full its services as soon as academic activities began in the host institution on 1<sup>st</sup> November 2010.

AKSU runs a multi-campus system – Ikot Akpaden Campus (main campus) and Obio Akpa Campus. The Ikot Akpaden Campus library which serves Faculty of Engineering, Faculty of Education, and Faculty of Sciences is located in the southern or coastal part of the state precisely in Ikot Akpaden, Mkpato Enin L.G.A. The Obio Akpa Campus Library serves Faculty of Arts, Faculty of Agriculture, and Faculty of Social and Management Sciences and is located in the central part of the state precisely in Obio Akpa, Oruk Anam L.G.A. The two campus libraries accommodate six different divisions – Administrative Division, Resource Development Division, Processing (Technical Services) Division, Readers' Services Division, Systems Development Division, and Research (Reference/Serials) Division.

There are e-libraries and Faculty Resource Centres established and managed by the libraries in the two campuses. The Main Campus Library including resource centres has approximately 61,470 volumes of print resources

and 11,227 e-resources. The total number of print resources in Obio Akpa Campus Library and resource centres is approximately 19,045 volumes while the number of e-resources is 3,862 [5]. The libraries on the two campuses are saddled with the responsibility of satisfying the information needs of 1,488 teaching and non-teaching staff and 7,857 student population as at 2016/2017 academic session [6].

## 3. Statement of the Problem

The library has long been viewed as the centre of academic life in any academic institution. As a central tenet of all academic activities, it is established to provide a variety of information resources and services to support learning, teaching, and research activities in the host institution. This stirring role of libraries seems to be defeated when the information resources and services are underutilized or non-utilized at all. It has been observed with great concern the low level of library patronage especially in tertiary institutions despite notable efforts by the government, library management, and other education constituencies towards library environment. This is evidenced by the declining statistics of head counts, books consulted and books borrowed. Observations also reveal that a large number of students and even staff depend on online resources which could be accessed anywhere, anytime, to solve their information needs. This situation calls into question the place of academic libraries as the strength of the best offering of any tertiary institution. It is in this connection that this study investigates the library physical environment and utilization of information resources and services in Akwa Ibom State University.

## 4. Objectives of the Study

This research is specifically aimed at determining:

- i. The location(s) preferred for study and research by staff and students in AKSU.
- ii. The reasons AKSU library is not preferred for study and research.
- iii. The influence of library physical environment on the utilization of information resources in AKSU.
- iv. The influence of library physical environment on the utilization of information services in AKSU.

## 5. Research Questions

In order to achieve the objectives of the study, the following research questions formulated and answered.

1. What are the locations often used for study and research by staff and students in AKSU?
2. What are the reasons AKSU library is not often used for study and research?
3. How does library physical environment influence the

utilization of information resources in AKSU?

## 6. Research Hypothesis

A null hypothesis was proposed to guide the study.

1. Library physical environment has no significant influence on utilization of information resources in AKSU.

## 7. Research Methodology

Survey design was adopted for the study since it involves investigating into an existing phenomenon. The study focused on staff and students in the six (6) academic faculties in AKSU. The researchers used stratified random sampling technique and Borg and Gall percentage (20% of the population) formula to arrive at 390 (280 final year students and 110 academic and non-academic staff) as sample size out of the total population of 1948. A three-part researcher-developed instrument titled "Library Physical Environment and Utilization of Information Resources Questionnaire" was used for data collection. Part One contains sought for demographic characteristics of the respondents while Part Two and Three sought for information on the variables in the study. The data obtained were analyzed using descriptive and inferential statistics guided by research questions and hypothesis.

## 8. Review of Related Literature

### Conceptual Review on Library Physical Environment

Physical environment includes components of the tangible workplace environment that comprise employees' working conditions. It is an area that supports and influences organizational behaviour. Lovelock & Wirtz [2] note that physical environment plays a key role in shaping services experience as well as enhancing or undermining users' satisfaction with the services. Specifically, library physical environment encompasses all the circumstances, people, things, and events within and around the library which seem to have potential effects (positive or negative) on the library usage. The author notes that physical environment and its accompanying atmosphere could affect users' behaviour in three important ways:

- i. As a message-creating medium: The library environment creates so much impression about the library. Such impression could affect the level of the information resources utilization. In this case, the quality and quantity of information resources; the level of information resources organization; the spatial layout; the functionality of the facilities; the lighting effects; the temperature; decorations, etc create convincing message to library users. It also reveals the level of library's readiness towards meeting its

objectives.

- ii. As an attention-creating medium: The library environment makes a library to stand out from other libraries. Thus, its uniqueness in design, space management, aesthetics, staff competence in services delivery, etc., could attract the attention of library users, vis à vis the utilization of its resources and services.
- iii. As an effect-creating medium: A library environment with colourful wall paints, beautiful decorations, directional signages, good designs, etc could create positive effects in the minds of the users. The ambient conditions of the library environment could reinforce library staff to higher productivity, enhance the desired services delivery and increase users' patronage.

Campbell & Shleeter [7] scanned library environments to determine their influence on user behaviour and satisfaction. The study revealed that the design of a library exerts influence on the use of library. The researchers identified poor organization of library resources, negative staff disposition, and unhealthy physical environment as constraints to effective use of the library.

Again, Clees & Maguire [8] and Suchi [9] conducted a study to ascertain the effects of the environment on library use. The results indicated that the perception of the total library environment has impact on library use than that of individual factors. The authors recommended better lighting, good seating arrangement, and a quieter library. The authors note that lighting is one of the most important subjective factors that could determine the 'warmth' and 'atmosphere' in a library. The quality of lighting can affect motivation, emotion, and even physical health. Seasonal affective disorder is currently treated with light therapy; one may conjecture that proper lighting in libraries can enhance learning and motivation. Full-spectrum lighting can even impact melatonin levels in the human body, affecting a person's energy level [9]. Another research conducted by Isiaka & Olaide [4] to assess the influence of library environment on library use by undergraduate students in Nigeria reveals that all the library environments studied were below the expectations of the respondents.

Library physical environment needs space and functionality [10]. The spatial layout of the library refers to the floor plan; size and shape of the shelves, lending counter, carrels and seats and other furniture; staff offices and reading area; conveniences and cloak house; potential equipment and location of entrance and exit doors. It also includes the way and manner items are arranged for efficiency of service operations and comfortability. The functionality refers to the ability of those items to facilitate the performance of service transactions. Be that as it may, spatial layout and functionality should be planned for in order to build and maintain a library that could shape library users experience.

It is sad that library professionals (library managers) are rarely consulted to contribute to the design of libraries.

Sometimes, the contributions of the few consulted may not be considered relevant. The reason being that they are neither architects nor civil engineers. But the truth remains that designing library environment from librarians' inputs could be very needful. Sometimes, the engineers may not have detailed information on certain factors that should be considered in the process of designing a library. Such factors include, the task types, number of staff, number of actual and estimated users, size of actual and estimated collection, and location of different library compartments and other facilities. It is quite disheartening that some librarians perceive that the process of designing library environment takes a lot of time, efforts and skills and is expensive to implement what is in the design as such they purposely indicate little or no interest in the process.

Periodic environmental survey is necessary to determine the extent of decay within and around the libraries. Issues like adequate circulation of air, application of noise control mechanism, development of user-friendly policies, choice of colours and decorations, provision of neat conveniences should be given prompt attention for comfortability to "bring back our users." It is worth noting that apart from the physical ambience of the library, the people that performed the different tasks in the library play a vital role in creating a particular identity for the library and shaping the nature of users' experience. Edet [3] corroborates this by emphasizing that library staff are the service providers and should be considered as important component of library physical environment since they could exert potential effects, positive or negative, on the use of information resources and services. The author notes that the appearance and behaviour of library staff can enforce or detract users from the impression created by the library. In other words, however good the library design, facilities, and material resources, if the staff attitude is not friendly and courteous, the library may not be patronized.

Be that as it may, physical library environment and other experiential elements within and around the library should be designed and developed for the widest possible spectrum of tastes, inquiries, and information needs of all the constituencies in the host environment. They need to create a setting where library users feel free to pursue research and study without compromising their privacy and safety. It is important to protect the physical integrity of library resources which form the intellectual core of the library as well encourage their optimal usage. Library physical environment needs to be revamped, otherwise students will decide to use alternative methods to gather the information they need and the objectives of establishing the libraries will be defeated.

### Information Resources: Conceptual Framework

The *raison d'être* of academic libraries is to provide relevant information resources in order to actualize educational philosophy as well as excellent achievement in the functions of research, learning, teaching, and community service [11]. Information resources could be referred to the

stock-in-trade of the library which users consult or read within the library or borrow for home use. Information resources are categorized into print and non-print materials. Print resources also known as book resources remain the most common and user-friendly format for information storage and accessibility and despite the wide acclaim of paperless libraries, constitute the bulk of library collection in libraries in Nigeria. The non-print materials, also known as non-book resources, are materials that contain records of existing knowledge in a non-paper-based format. They are commonly called audio-visual materials or multi-media resources. This group of information resources came into existence through the advances in Information and Communication Technologies (ICTs). Non-print resources are multifaceted, dimensional, time and space saving, and profit-making. Lee [12] and Ugah [13] observed an increasing preference to online and instant access to information among library users. The implication here is that academic libraries are expected to provide more of information resources in non-print format like computerized databases, back-up copies of lecturer's teaching note, educational software packages, Internet, e-books, e-journals, and others.

Information resources, whether print or non-print are selected, acquired, organized, and disseminated in different fields of knowledge especially those related to the academic programmes offered in the academic institution. Such information resources are books, scholarly journals, magazines, government documents, newspapers, etc. The list includes monographs, reference sources, grey literature, unpublished materials, Africana and Nigeriana collection. These varied information resources are expected to be maximally used or consulted to justify the essence of the library and its funding. At this point, the library's concern is to engage in activities by way providing the right atmosphere that will guarantee effective and efficient use of print and non-print resources within and even beyond the library.

## 9. Presentation of Data Analysis

The results of data analysis are presented as follows in line with the three research questions and one hypothesis.

**Research Question 1:** What are the locations students/staff often prefer for study and research in AKSU?

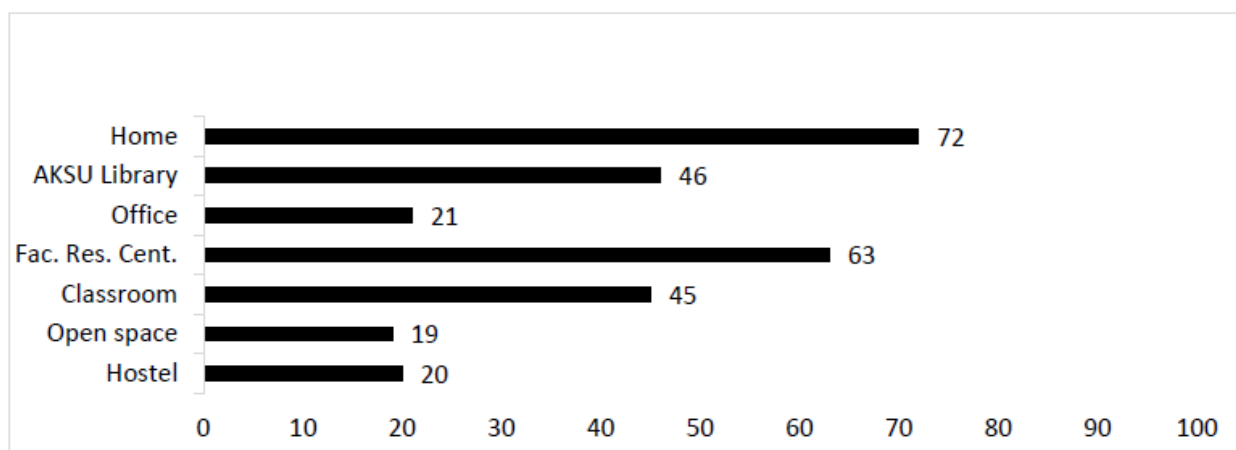
Figure 1 shows the distribution of valid responses on preference to study/research locations. It indicates that 72% respondents chose home as the preferred location for study/research. Followed by 63% of the respondents who chose Faculty Resource Centre and 46% of the respondents chose AKSU library as preferred study/research location. This confirms the observed underutilization of information resources and services in academic libraries.

**Research Question 2:** What are the reasons AKSU library is not often used by students for study and research?

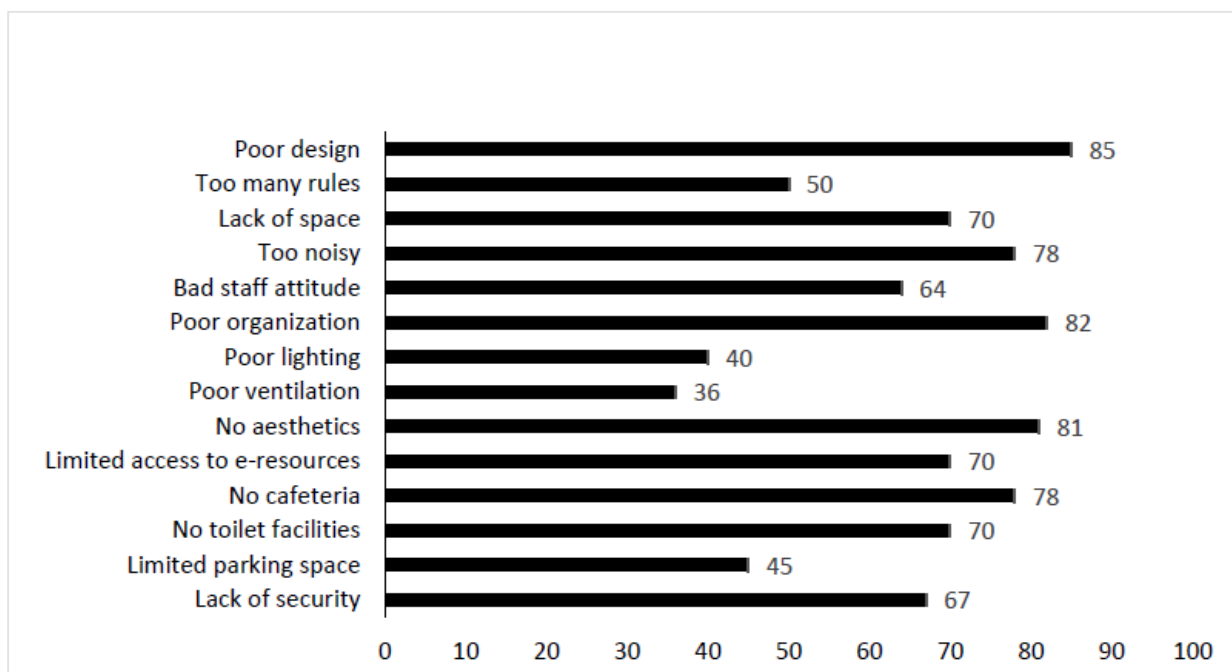
Figure 2 shows the distribution of valid responses on reasons AKSU library is not chosen as the preferred location

for study and research by students and staff of AKSU. The chart reveals that 85%, 82%, 81%, 78% and 78% of the respondents claim that the reasons AKSU library is not the preferred location for study/research are poor design, poor organization of books, no aesthetics, too noisy, no cafeteria respectively. Again, 70%, 70%, 70%, 67%, 64%, 50% of the respondents identified no facilities, limited access to

e-resources, lack of space, lack of security, bad staff attitude, and too many rules as reasons for not using library for study/research. This is an indication that the underutilization of information resources and services in AKSU library is attributed to the identified library physical environment factors.



**Figure 1.** Bar Chart showing responses on the location(s) students/staff often prefer for study and research in AKSU



**Figure 2.** Bar Chart Showing Responses on Reasons AKSU Library is not the Preferred Location for Study/Research

**Research Question 3:** To what extent does library physical environment influence the utilization of information resources in AKSU?

Table 1 indicates that above average of 210 (54%) respondents agreed that they visit the library to read newspapers and that the lighting in the library makes it comfortable for reading. Also, 205 (53%) respondents agreed that the library provides quick and easy access to

e-resources. Majority of 321 (83%) respondents disagreed that the library provides signages to direct users to different locations of need. 290 (74%) respondents disagreed to the statement that library design motivates users to visit the library frequently. 230 (59%) respondents disagreed that the library has enough space. Above average of 209 (54%) respondents disagreed with the statement that the library aesthetics attracts and that the library is free from noise. Also,

200 (51%) respondents disagreed that the library resources are properly organized for easy retrieval. This is an indication that library physical environment does not support effective utilization of information resources in Akwa Ibom State University.

**Hypothesis 1:** Library physical environment has no significant influence on utilization of information resources in AKSU.

Table 2 reveals that t-crit value (2.015) is greater than t-cal value (-0.05301). Hence, the null hypothesis which states that library physical environment has no significant influence on utilization of information resources in AKSU library is accepted. This implies that library physical environment quality does not contribute to the use of information resources in AKSU library.

**Table 1.** Distribution of Responses on Library Physical Environment and Utilization of Information Resources

Statements on Library Physical Environment and Utilization of Information Resources	SA	A	Total	D	SD	Total
	F&%	F&%	SA&A	F&%	F&%	D&SD
I study in the library because there is enough space to spread out.	100 (26%)	60 (15%)	160 (41%)	130 (33%)	100 (26%)	230 (59%)
I visit the library regularly because of easy access to e-resources.	160 (41%)	45 (12%)	205 (53%)	95 (24%)	90 (23%)	185 (47%)
I find it easy to use library resources because they are properly organized.	98 (25%)	92 (24%)	190 (49%)	105 (27%)	95 (24%)	200 (51%)
The library aesthetics attracts me to use library books.	90 (23%)	90 (23%)	180 (46%)	101 (26%)	109 (28%)	210 (54%)
The library provides comfortable seats for reading of newspapers.	110 (28%)	100 (26%)	210 (54%)	95 (24%)	85 (22%)	180 (46%)
The library staff attitude encourages me to use library resources.	115 (29%)	70 (18%)	185 (47%)	108 (28%)	97 (25%)	205 (53%)
The library design motivates me to visit the library frequently.	35 (9%)	65 (17%)	100 (26%)	190 (48%)	100 (26%)	290 (74%)
The lighting in the library provides brightness and comfortable atmosphere for reading.	110 (28%)	100 (26%)	210 (54%)	97 (25%)	83 (21%)	180 (46%)
The library provides signages that direct me to locations I need.	25 (6%)	44 (11%)	69 (17%)	201 (52%)	120 (31%)	321 (83%)
The library is always quiet and that encourages me to use the library resources efficiently.	78 (20%)	103 (26%)	181 (46%)	124 (32%)	85 (22%)	209 (54%)

**Table 2.** T-test Analysis of Influence of Library Physical Environment on Utilization of Information Resources

Variables	Mean	Std. dev	df	t-cal	t-crit	P-value
Library Physical Environment	97.52	32.78	5	-0.05301	2.015	0.479 <sup>ns</sup>
Utilization of Information Resources	97.52	18.665				

*ns*- not significant

## 10. Discussion of Findings

The findings of hypothesis 1 indicated that library physical environment has no significant influence on utilization of information resources in AKSU library. The current findings is in line with [4] who assessed the influence of library environment on library use by undergraduate students in Nigeria and the study revealed that all the library environments studied were below the expectations of the respondents and that they occasionally use library resources when they have compelling needs to do so. The plausible explanation for this is that students, lecturers, and other user groups do not consider library physical environment conducive and comfortable to motivate them to effective use

of information resources. In other words, the constructs of library physical environment (design, space, aesthetics, signages, facilities) studied are not such that could neither exert positive influence nor encourage utilization of information resources in AKSU library. In order to “bring back our users” attention must be given to making the library physical environment conducive and comfortable.

## 11. Conclusions and Recommendations

Academic libraries in tertiary institutions in Nigeria are confronted with the challenges of underutilization of library resources. Majority of students, lecturers, and researches prefer using their phones, laptops, and computers to access

electronic resources through Internet. At the comfort of their homes and offices, they access and use lecture notes, textbooks, journals and other educational online resources to satisfy their information needs. The lethargy to information resources utilization in libraries is not unconnected to the poor library physical environment. The result of this study proves that library physical environment has no influence on utilization of information resources in AKSU library. Hence, the following recommendations are made as measures to reposition library physical environment with a view of ensuring effective utilization of information resources.

- i. Information Technology (IT) driven facilities should be implemented in academic libraries such as cloud computing technology.
  - ii. Libraries should be designed or re-designed and furnished to provide comfortability.
  - iii. Budget allocation for libraries should be remitted promptly and managed by library management team with close supervision of the university management and not the reverse.
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