ACADEMIC LIBRARY RESOURCE-UTILIZATION AND ASSOCIATED FACTORS: IMPLICATIONS FOR ACADEMIC LIBRARIANS IN CONTEMPORARY DIGITAL AGE AT THE FEDERAL POLYTECHNIC ILARO AND FEDERAL UNIVERSITY OF AGRICULTURE ABEOKUTA, OGUN STATE

By

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Abstract
Academic libraries are essential components of educational institutions, supporting faculty members, students, and other users in their intellectual pursuits. The emerging technology around information resources is a game-changer for scholarly academic work that may constitute a serious challenge to users in their intellectual performance. Academic libraries are now positioned to provide the bridge that should close any gaps created by the emerging Artificial Intelligence (AI)-Driven information technology.   This study sought to identify the level of utilization of Academic Library Resources and associated factors that may be relevant determinants of responsiveness of academic Librarians in contemporary digital age of emerging AI driven information technology at the Federal Polytechnic Ilaro and Federal University of Agriculture Abeokuta, Ogun State. This study employed a descriptive survey design that enrolled 96 consenting librarians from the Federal Polytechnic Ilaro and Federal University of Agriculture Abeokuta. Validated questionnaire was used for data collection and analysis conducted to report findings related to level of utilization of Academic Library Resources and associated factors as summaries of descriptive statistics with 5% level of significance considered for all hypothesis conducted. Findings revealed low level of user utilization of Academic Library with factors such as inadequate reading environment, lack of internet access, obsolete materials, and unfriendly attitudes of librarians as prevailing circumstances associated with the observed level of utilization of Academic Library Resources and services. Findings strongly suggests regular training of personnel and improved investment in updating resources to strengthen the purpose for which the library exists in academic institution and foster information access through personal devices to further position library at the center of academic activities in such institutions.

 Keywords: Academic Libraries, information resource infrastructure, utilization, Digital Age, Librarians.

Introduction

Academic libraries serve as repositories of knowledge, pivotal for scholarly research and academic activities (Omekwu, 2003). Despite technological advancements, their role in promoting learning and research remains crucial. In the educational enterprise, Libraries provide access to diverse information resources, promote education and learning experiences, preserve cultural heritage, facilitate research, and encourage lifelong learning (Citations required).   Their significance in society underscores the importance of ensuring adequate utilization of the services and resources they can provide and

their ability to effectively respond to the prevailing technological advancements to meet users' constant evolving needs. Libraries provides opportunity for enhanced learning experiences and access to varieties of information resources such as books, newspapers, magazines, journals, digital media, database among others. library provides access to free knowledge irrespective of culture, gender, race and religion, and help people stay informed in information related matters. Libraries are in themselves institutions that promote teaching and learning in academic environment and reading culture for self-development. (Citation required). Other functions the libraries provide includes preserving cultural heritage by maintaining collections of local history, rare books, manuscripts and other artifacts (Citations). Importantly, Libraries for ages have been the center for research and scholarly activities such as writing books and journals. Academicians often make use of the libraries to prepare for their lectures, paper writings/articles. Overall, Libraries encourages lifelong learning by providing resources for all ages, from early childhood literacy to adult education. Challenges such as the shift towards digital resources and changing user behaviors, when responsiveness of the library institution appears to be lagging, becomes a serious threat to its continuous relevance to scholarship it is supposed to serve.(Ocholla, 2009) Poor library reading environment and settings has brought about low user's patronage in academic libraries, for no user will want to study under a structure without fans, air conditioners and light, these three factors contribute to the comfort of users and thus enhances reading and studying.

As observed by Amanze (2021) in a study that the advent of information communication technology (ICT) has dramatically changed the way people and institution function. It has led to tremendous changes in the ways libraries operate and offer their services to users. With introduction of ICT, libraries now use various types of technologies to provide information resources and services to users. This has orchestrated the demand of the digital era and changed the information seeking behavior of users. The new generation of users prefers online/electronic resources as they want all the information at the click of a mouse. Perhaps, the digital age and the emergence of ICT has made so many users reluctant in making use of hard copy materials in the library, and this has pose a threat of losing uses and thereby making the library seemingly dormant and inefficient.

Theoretical and Conceptual Clarifications:

The next industrial revolution has come to stay impacting on every facet of human experience including the academia and the library systems it depends on as it main source of information. Several studies (Smith, 2019; Ram 2015). have highlighted the extent to which digital technologies have impacted the libraries and the services they offer, characterizing the emergence of data handling technology which initially appeared in the form of information technology and metamorphosed as big data analytics and artificial intelligence (AI), changing the way academic library services were to be structured and delivered around the world creating the need for digital literacy among librarians and users.

The emergence of this technology defined the characteristic features of information resource space as uniquely different from traditional libraries and approaches to information resource management, though the core resources remained the same. The race had been initiated to join the new era of how information must be processed and delivered. This change became the significant threat to the survival of Academic libraries and the services they provide if the required responsiveness are not followed as quickly as the changes were settling globally. Libraries that aimed at rendering quality services to its users became the rate-limiting section of the

information infrastructure in academia. The burden of making sure that users are satisfied, and that their questions are being answered accordingly, academic libraries enable users to make the most effective use of resources and services it renders, as well as allowed them access to their collections (Gupta, & Singh, 2020). This trend characterized the evolving global roles of academic librarians in the digital age within the context of some countries such as the Indian universities similarly identifying challenges faced by librarians in quickly adopting digital technologies, such as providing adequate training and resistance to change, and proposes strategies for enhancing their effectiveness in supporting teaching, learning, and research. Studies by Chen, & Li, (2021) characterizing the evolving features in other parts of the world such as in China and the United States of America provided insight into the necessity for professional development and collaboration to improve digital services in academic libraries.

The studies of Ofodile and Ifijeh (2021) and Amanze (2021) clearly presented the importance of librarian in this digital era to be computer literate and have a very good knowledge of operating the World Wide Web and competence in the protocol for information search with it, as some librarians seems to be afraid to engage the computer for these functions feeling that by engaging the information computer interface may alter an existing information in the computer. These studies emphasized engaging Academic libraries in structured training workshops along with basic computer education in library automation to keep the librarians relevant and effective in discharging their duties.

There are obvious barriers responsible for the observed low utilization of libraries and include the unavailability of current information materials and poor reference services. Some of the reasons for low use of the library may be attributable social media distractions, outdated materials, and inadequate infrastructure. The digital age has significantly transformed information-seeking behaviors or users, necessitating the integration of ICT to meet users' demands efficiently (Asokan. and Dhanavanadan 2017)

Statement of the Problem

The challenges libraries may experience in a contemporary age of rapidly evolving technology around information resource can become daunting and a source of concern for resource-limited communities (Smith, 2019. What can happen is a gradual loss of relevance for scholarly academic work that may constitute serious challenge to users in their intellectual performance. Academic libraries are positioned to provide the bridge that should close any gaps created by the emerging Artificial Intelligence (AI)-Driven information technology. If there is observed low utilization as suggested by the study of Okonkwo, Ureki and Okonkwo, (2002) of library resources and services, it may be an important signal to trigger a comprehensive re-appraisal of how effective the academic libraries are currently meeting the research needs of scholars. This appraisal should serve the purpose of a system library utilization diagnostic survey of potential benefactors of library services. Therefore, this study sought to identify level of utilization of Academic Library Resources and associated factors that may be relevant determining the responsiveness of academic Librarians in contemporary digital age of emerging AI driven information technology at the Federal Polytechnic Ilaro and Federal University of Agriculture Abeokuta, Ogun State.

The study raised six research question emerging from the characteristic features of the problem phenomenon expressed by the study title to guide in finding answers to the problem involved in observed low utilization of libraries and factors likely to be associated with these observations. These are research

questions raised from characterization of the problem phenomenon to guide finding answers defining the problem:

1. What are the reasons for the observed reduced Utilization of library facilities and resources in FPI and FUNAAB?
2. What are the available library resources to be effectively put in place to drive contemporary library functions in meeting deficiencies observed that can promote the use of library?
3. What may be consequences emerging from low utilization of FPI and FUNAAB Libraries?
4. What is the extent of users' utilization of FPI and FUNAAB Libraries?
5. What are the Roles of Librarians towards quality utilization of FPI and FUNAAB Libraries?
6. What are the likely course of actions to take in mitigating the challenges associated with low utilization of academic Libraries?

Research methodology

Study Design

This study employed a descriptive survey design that enrolled 96 consenting librarians and para-librarian by total enumeration from the Federal Polytechnic Ilaro and Federal University of Agriculture Abeokuta. The participating educational institutions were selected by simple random sampling of one federal polytechnic and university respectively. A validated questionnaire was used for data collection and analysis conducted to report findings related to level of Academic Library Resources utilization and associated factors as summaries of descriptive statistics of frequency distribution of demographic characteristics and responses representing tables reflecting the research questions.

Results

The results of this study showed that 96 out of a total of 99 librarians and para-librarian providing library services in the two tertiary academic institution in Ogun state selected by simple random sampling of one federal polytechnic and university respectively. The distribution of participants in the study from the two institutions are displayed in table 1. As shown in the table, the breakdown is as follows: federal polytechnic Ilaro library (45), federal university of agriculture Abeokuta library (54) participated respectively in the study.

Table 1. Frequency distribution of participants in the study from the two academic Libraries

Response distribution regarding available library resources /ICT materials in use in the library N=96	
S/N Name of the Academic Libraries	**Librarians and Para-librarians**
1 Federal Polytechnic Ilaro (FPI)	45
2 Federal University of Agriculture Abeokuta (FUNAB)	54
TOTAL	99

Source: The above information was dericed from the establishment units of the academic libraries under study, through personal contact in 2023/22024 academic session.

Reporting Utilization of library facilities and resources in FPI and FUNAAB

The study considered utilization of the libraries and their resources in Table 2. The results revealed 5 identified items as likely reasons for low utilization of services and resources by users in FPI and FUNAAB libraries. The five items in the questionnaire considered for likely reasons of observed low utilization of library facilities and resources showed that 55(57.3%) participants in the study agreed that lack of conducive reading environment appeared to be likely reason for low utilization, while 74 (77.1%) similarly agreed that non-availability of internet is an important consideration in the observed low utilization of the facility in both institutions. When obsolete materials in the libraries was surveyed, 60 (62.5%) agreed that this is their observed experiences in both institutions. Librarians' unfriendly attitude towards users showed that 50(52.1%) of the participants agreed to this item in the

questionnaire. Considering lack of ICT facilities/library software for conducting library operations, the study revealed that 77 (80.2%) of respondents similarly agreed that these resources to facilitate library operations were inadequate.

Report on available library resources to effectively operate the library functions

The results showed that substantial number of resources for the effective functioning of the library are estimated by the respondents in the study to be inadequate, except for E-catalog, Barcode reader, Machine readable catalog and Library based software. *(See table 3)* The absence of these resources becomes serious challenges to the effective operation of the library in an academic set such as the Federal Polytechnic Ilaro and Federal University of Agriculture Abeokuta.

Table 2. Frequency distribution regarding likely reasons for observed Low utilization of library facilities and resources in FPI and FUNAAB

Response distribution regarding reasons for observed Low utilization of library facilities and resources in FPI and FUNAAB

N=96

S/N	Statements for Consideration	SA	A	D	SD
1	Lack of conducive reading environment	44	11	4	2
2	Non-availability of internet	57	17	5	0
3	Obsolete materials	49	11	9	4
4	Librarians unfriendly attitude	36	14	19	1
5	Lack of modern ICT facilities/ library Software	57	20	5	2

Source: *Data derived from field information provided by respondents in this study*

Table 3. Frequency distributions regarding available library resources /ICT materials in use in the library

S/N	Resources Identified used in the library	YES	NO
Response distribution regarding available library resources /ICT materials in use in the library			
N=96			
1	Computers	76	0
2	E-catalog	22	54
3	Barcode reader	17	52
4	Internet services	74	2
5	Machine readable catalog **(MARC)**	22	53
6	Library software	61	9
7	Online public access catalog **(OPAC)**	26	49
8	Library based software **(KOHA, Evergreen)**	25	52
9	Current books	62	1
10	Current journals/periodicals	63	1
11	Projectors	62	2

Source: Data derived from field information provided by respondents in this study

Perceived implications of low utilization of libraries in the two academic institutions

Most participants in the study responding to study items in the questionnaire appraising their perceived implications of low utilization of the library in the two institutions unanimously agreed that this would result in Reduction in academic advancement (65.6%), Poor performance in academic work may be an adverse consequence (59.4%), while 65.6% of the participants perceived demotion in institutional academic reputation is likely to occur and 50(52.1%) perceived failure as a result. *(See table 4)* From the analysis, we can attest to the fact that low user-utilization towards the library has potential consequences as appraised.

Table 4. Frequency distribution regarding Perceived implications of low utilization of the libraries in the two academic institutions being appraised

S/N	Statements for Consideration	SA	A	D	SD
Response distribution regarding Perceived implications of low utilization of the libraries in the two academic institutions being appraised in FPI and FUNAAB					
N=96					
1	Reduction in academic advancement	42	21	8	0
2	Poor performance in academic work	32	25	8	1
3	Demotion in institutional reputation	35	28	12	0
5	Failure	29	21	10	0

Source: Data derived from field information provided by respondents in this study

Report on extent of user-utilization of the Libraries at FPI and FUNAAB

When surveyed regarding user-utilization profile of the libraries as observed by the respondents in this study revealed that period of focused utilization is usually during examination (84.4%), and frequency of most use ordinarily reported by respondents (63.5%) fall between twice a week and once in a week (54.2%). *(See table 5)* Only 22 (22.9%) agreed that the libraries in both institutions are likely to be used 4-5 times in a week. The data shows beyond reasonable doubt, that there is observed inadequate utilization of library, and this may pose a significant challenge to library operations and place redundancy on the librarians who serve there and raise serious questions on the relevance of the library.

Table 5. Perceived user-utilization of the libraries in the two academic institutions.

S/N	Statements for Consideration	SA	A	D	SD
	Response distribution regarding Perceived user-utilization of the libraries in the two academic institutions being appraised for FPI and FUNAAB **N=96**				
1	During examination	69	12	1	0
2	Frequently	9	17	6	36
3	Twice in a week	12	49	7	2
4	Once in a week	12	40	15	5
5	Once in two weeks	9	40	17	6
6	4-5 times in a week	7	15	20	29

Source: *Data derived from field information provided by respondents in this study*

Possible strategies by Librarians towards improving quality utilization of the libraries in the two academic institutions' patronage of FPI and FUNAAB Libraries

According to the information in table 6 regarding perceived strategies towards improving quality of user-utilization of libraries in the two academic institutions, it revealed that the librarians have a task and responsibility to make libraries conducive and enviable part of their host institution, to attract users for utilization of available resources to improve achieving scholarship. The perceived possible strategies to improve quality utilization of the libraries suggested by participants in the study appear to place improved attitudinal disposition (76.0%) at forefront for consideration with Orientation on modern ICT facilities (75.0%), Improved knowledge on ICT use (75.0%) and current awareness of available services 76.0%) following.

Table 6. Perceived strategies towards improving quality of user-utilization of libraries in the two academic institutions

S/N	Statements for Consideration	SA	A	D	SD
	Response distribution regarding Perceived strategies towards improving quality of user-utilization of libraries in the two academic institutions being appraised for FPI and FUNAAB **N=96**				
1	Improved attitudinal disposition	60	13	1	0
2	Acquisition of good ICT skills	65	7	3	0
3	Orientation on modern ICT facilities	57	14	3	0
4	Improved knowledge on ICT use	58	14	2	1
5	Current Awareness services	58	15	2	1

Source: *Data derived from field information provided by respondents in this study*

Course of actions to take in ameliorating challenges of low utilization of academic Libraries.

Participants in this study provided six responses to perceived courses of actions to take in ameliorating challenges of user-utilization of the libraries in FPI and FUNAAB. The response distribution in table 7 reveals clearly that a significant majority (77.1%) are of the opinion that all six suggested courses of action to take in ameliorating challenges of user-utilization of the libraries reflect their perspectives.

Table 7: Ways of mitigating the observed challenges

Response distribution regarding Perceived Course of actions to take in ameliorating challenges of user-utilization of the libraries in FPI and FUNAAB N=96				
S/N Statements for Consideration	SA	A	D	SD
1 Acquisition of current resources	55	16	2	0
2 Friendliness of librarians towards users	57	19	1	0
3 Availability of conducive reading environment	62	10	1	1
4 Availability of modern ICT facilities	63	11	0	0
5 Availability of Library software	63	10	2	0
6 Availability of internet connectivity	64	9	1	0

Finding indicates that user-utilization of the library for the purposes of accessing library resources appear very low and this observed anomaly emerge because of reported issues involving inadequate library resources and operational physical conditions to effectively facilitate library functions.

Discussion of Findings

This study characterized the nature of the problem phenomenon observed to constitutes the challenges emerging from gaps in utilization of libraries in academic institutions created by the emerging Artificial Intelligence (AI)-Driven information technology and consequent fallout of poor utilization of academic library and its resources for academic Librarians at the Federal Polytechnic Ilaro and Federal University of Agriculture Abeokuta, Ogun State. Six research questions were raised to provide insight into the scope of the problem through responses of the participants. These constitute the basis for the discussion of findings.

What are the reasons for the observed reduced Utilization of library facilities and resources in FPI and FUNAAB?

Academic libraries are essential components of educational institutions, supporting faculty members, students, and other users in their intellectual pursuits (Kuh, and Gonyea, 2015; Folorunso and Urhiewhu 2016; Tenopir, Christian, Kaufman, et al. 2018). The challenges libraries may experience in a contemporary age of rapidly evolving technology around information resource can become daunting and a source of concern for resource-limited communities such as Nigeria. No doubt, in the educational enterprise, Libraries provide access to diverse information resources, promote education and learning experiences, preserve cultural heritage, facilitate research, and encourage lifelong learning. Clearly, limited access to relevant technology and internet services as observed by other studies (Smith, 2019; Ram 2015) highlighting the extent to which

implementation of digital technologies have impacted the services offered by libraries due to limited investments towards upgrading available is like what respondents observed in this study. This suggests that the problem as identified in the past persist.

What are the available library resources to be effectively put in place to drive contemporary library functions in meeting deficiencies observed that can promote the use of library?

The absence of physical infrastructural and technological resources becomes serious challenges to the effective operation of the library in an academic setting such as demonstrated by the two academic institutions, Federal Polytechnic Ilaro and Federal University of Agriculture Abeokuta, considering that these are foundational to academic scholarship. The appraisal of the available library resources by the participants in this study sufficiently demonstrates that the library is seriously faced with the challenge of limited library resources and most likely an important factor in the observed low user-utilization and invariably has potential consequences for academic accreditation (Folorunso and Urhiewhu, 2016). The implications are that no serious search by scholars take place in the library where they are likely to fail retrieving necessary resources to complement their research, hence they would decide to use their personal search resources to bridge the gap for those who have alternative means and those who do not have such opportunities to meet the demand of their work would probably retire to despair.

The question of the extent of user-utilization of FPI and FUNAAB Libraries

The study appraised the extent of user-utilization of FPI and FUNAAB Libraries and provided evidence of a low frequency of use of 4-5 times in a week which provides support for the observed inadequate utilization of the library by users and may exacerbate the challenge for adequacy of library operations and make librarians who serve there to become redundant and raise serious questions on the relevance of the library.

Possible strategies by Librarians towards improving quality utilization of the libraries in the two academic institutions patronage of FPI and FUNAAB Libraries

When a resource facility expected to enable users achieve their desired goals fail to perform as expected becomes an important signal to restore the vision and mission of such system. This study provided information regarding likely strategies to be engaged by stakeholders towards improving quality of user-utilization of libraries in the two academic institutions being appraised for FPI and FUNAAB. The respondents in this study who are also those who work as professional librarians provided six responses to suggest course of actions to take in ameliorating challenges of user-utilization related to improved attitudinal disposition, acquisition of good ICT skills, orientation regarding modern ICT facilities, and current Awareness of services in relation to technology literacy and similarly suggested by Adarkwah, Okagbue, Oladipo, et al., (2024). Implementation may be a challenge because of the magnitude of investment involved and financial resources available.

Conclusions and Recommendations

Problems with adapting to the emerging advances characteristic of the changing landscape of library operations and the realities of the newcomers of digital libraries and big data culture and how these may impact library usage and information behaviour may be terrifying, particularly in resource-limited communities. The responsiveness of libraries to the transformation in how information must be managed and delivered to users appears to be slow, thus creating a gap which may not be favourable to the function of the library and librarians to scholarship (Li, Jiao, Zhang and Xu, 2019). Academic libraries play a vital role

in supporting education and research (Oakleaf, 2010), but they face challenges in adapting to the digital age. Librarians must embrace digital literacy and enhance library services to meet users' evolving needs. This provider-perspective has essentially characterized the dynamics of the problem of low-user usage of the libraries in the two academic institutions with suggestions of likely courses of actions to restore relevance in a rapidly evolving global emerging Artificial Intelligence (AI)-Driven information technology. By addressing these challenges, academic libraries can remain relevant and ensure quality patronage in the digital era. It is recommended that librarians should become intentional in in-house training of staff in their department about technology changes taking place and appropriate attitudinal dispositions towards clients who require their services. Bring experts from various fields of library information to share their experiences in a regular continuing professional development (CPD) strategy to update the skills and competence of librarians.

Acknowledgments

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