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# CHALLENGES OF THE USE OF ELECTRONIC AND PRINT RESOURCES BY STUDENTS IN SELECTED TERTIARY INSTITUTION IN KWARA STATE

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**Abstract**

*The study investigates the challenges on the use of electronic and print resources by students in selected tertiary institutions in Kwara State, Nigeria. In order to achieve the set objectives, the researcher adopted survey research design using questionnaire as the major instrument for data gathering and complimented by observation. The total population for the study was 7, 954 from which 150 students were sampled. The study finds out that undergraduate students use information resources for academic related purposes; print information resources were more available for students use in the academic libraries; the findings further indicated that most libraries do not provide electronic information resources; the challenges facing include lack of awareness of available resources, obsolete books and lack and lack of adequate relevant books. Some of the recommendations include: institutions should improve more on the information resources provided in their various libraries; intensive training in print and electronic information resources; the libraries should provide current and adequate print information resources for the programmes in their various institutions among others*

**Keywords:** Challenges, Electronic Resources, Print Resources, Students, Tertiary institution

## INTRODUCTION

There are different types of libraries and their aims and objectives are determined by the organization they are established to serve. The concept of librarianship is based on provision of relevant, accurate and timely information services for the purpose of utilization by the clientele to achieve the objectives of their institutions. Academic libraries (academic libraries) are established in academic institutions to provide information resources and services to meet the information needs of the clientele (staff and students). Libraries established to provide information resources and services to support teaching, learning and research in academic institutions such as universities, polytechnics, colleges of education and other similar institutions are referred to as academic libraries (Aliyu, 2018). Abubakar (2011) opined that academic libraries are at the forefront of providing information services to their respective communities which comprise of students, lecturers, and researchers to support teaching, learning and research.

Library collection over the years has been based on the printed word. This has made its stakeholders – library personnel, publishers, booksellers, university administrators and users - to conform to a certain way of actions. The introduction of electronic information technology means that these stakeholders have to adjust their positions and actions concerning how to create, publish, distribute and use the available information. According to Law (2010) “electronic information has gradually become a major resource in every academic library”. The emergence of e-resources transformed information handling and management in the academic environment and in academic libraries. Through the use of e-resources, academics and students now have access to global electronic information resources for their scholarly communication.

Print information resources were the main and predominant information resources until 1970s when electronic information resources became prominent sources of information for academic purposes. The advent of electronic information resources, services and use was a great turning point and challenge to print resources, services and use (Mohammed, 2015). The first major challenge was the traditional definition of library as place, physical resources, services, location which were core in print information resources environment. Mohammed (2015) established that despite the call for electronic resources and services, print information resources still provide useful support to academic library users. It was also reported that some library patrons had more faith in information services from the institution’s library even if they were in electronic format. It was also argued that electronic information resources cannot replace print information resources in academic libraries for sometimes to come.

Electronic resources are valuable tools for study, learning and research. Electronic resources can provide many advantages over traditional print-based resources: they contain current information because they are updated frequently, they offer advanced search capabilities, they offer flexibility in the storage of the results, and they enable access to information without the restrictions of time and location. The access to electronic resources in Higher Education Institutions is rapidly increasing. The growth of information in electronic format forces students to learn how to find, select and use a wide variety of resources. Higher education must develop these skills, in order to produce qualified individuals, engaged in the lifelong pursuit of knowledge for personal and professional growth (Agboola, 2010).

There are several challenges facing academic libraries today but there are two that stand out clearly - libraries need to continue acquiring books and journals to strengthen their collection amidst the problem of not knowing what exactly to acquire because there is information explosion which has come with increased costs and at a time when library budgets are reducing; and libraries must decide how they will respond to the ever increasing and changing electronic

information technologies which have come into the information world to change the traditional ways and methods of library service (Mohammed, 2015).

### **Statement of the Problem**

The arrival and proliferation of electronic resources and digital libraries have already influenced and changed the way students and scholars use print resources. It has also sparked a new wave of literature on the perceptions and preferences of print and electronic resources. Undergraduate students, graduate students, and faculty have different perceptions and preferences in their choices of print and electronic resources. Moreover, very little is known about the circumstances that influence their choice of format of resources and the type of libraries (i.e., traditional vs. digital) to satisfy their information needs. However, considering the time lag in information accessibility, electronic information resources infrastructure is more available, accessible and preferable (to print resources) now to students (Azubogu and Madu, 2010). It is on this template that the research work tends to do a comparative study on the usage of electronic and print resources in selected tertiary institution in Kwara State.

### **Objectives of the Study**

The general objective of this study is to examine the challenges of the usage of electronic and print resources by students in selected tertiary institution in Kwara State. The specific objectives are:

1. To find out the print and electronic resources available in the institution's libraries for students use.
2. To compare the level of satisfaction with print and electronic information resources and services provided by academic libraries
3. To determine the challenges faced by students in using print and electronic information resources and services available in the institutions libraries

### **Research Questions**

This study seeks to provide answers to the following questions:

1. What are the print and electronic resources provided by the institutions libraries for students use?
2. What is the level of satisfaction with print and electronic resources provided by institutions libraries?
3. What are the challenges faced by students in using print and electronic resources available in the institutions libraries?

### **Literature Review**

A library is always associated with information management and services for general use or to particular users or organization. The library is a universal phenomenon which underscores the importance of information resources and services in human activities. The American Library Association Glossary of Library and Information Science (2009) defined library as "a collection of materials organized to provide physical, bibliographic, and intellectual access to a target group with a staff that is trained to provide services and programmes related to the information needs of the target group". Chiemeke (2012) sees library as "an organized collection of published books and periodicals and of other reading and audio-visual materials and the services of staff to provide and interpret such materials as are required to meet the information, research,

educational or recreational needs of its users.” These definitions presupposes that information resources are required to provide services, but it also sees the physical organization and administration of information resources based on defined principles of library and information science as inseparable. This is because the information resources (print and non print) were physically organized and confined to a location and users go there to consult them.

Academic libraries information resources (print and electronic) must be able to support students; staff and faculty in their research and pursuit of education to enable the institutions achieve their objectives. Arguing in support of this, Thachill (2008) expressly stated that “academic libraries exist to support students, staff and faculties in their research and education by procuring and making the best print and electronic resources available.” It is on this premise that it has become the tradition of the academic institutions to establish libraries and in some cases have branches such as schools and departmental libraries to help students locate in-depth materials on major courses of study (Haliso, 2011). The relationship libraries and undergraduate students is supportive and or better described as collaborative for the existence and successful accomplishment of the mission of academic institutions.

Biradar, Biradar, Kumar and Mahesh (2012) surveyed 101 students use of information resources. They found that some respondents preferred printed information resources such as; books, periodicals, dictionaries, yearbooks, encyclopedia and directories. This clearly indicated that printed information materials were still useful and patronized by students. MacColl (2010) pointed out that print materials were “still in use because of portability value, and relative ease of access and use.” These conventional library resources still provide support to learning and they improved library collection and reference services.

The fact remains that printed information resources were the predominant means for providing information resources and services in academic libraries. However, as earlier observed, non-print information materials have always been part of library information resources in form of audiovisual materials. Thus, whenever reference is made to library information materials, some non-print information materials (audio, visual or audiovisual) such as microfiche, microfilm, tapes, cassettes, slides, audio, are listed or mentioned. For instance, Popoola and Haliso (2013) described information resources as those information bearing materials in both printed and electronic formats which include journals, newspapers, magazine, textbooks indexes, abstracts CD-ROM database, videotapes, cassettes, diskettes, magnetic disks, Internet/email, microfiche, microphones. In a related discourse, Oyewusi and Oyeboade (2012) stated that academic library resources include not only traditional print-on-paper media like books, journals, newspapers and maps, but also audio visual materials like records, audio cassettes, video cassettes and projectors. The electronic information resources have continued to increase in variety, capacity and compactness contrary to the print technology which has remained basically on paper. The technology of printing and procedure has barely changed drastically over the past centuries since the time of Johannes Guttenberg in 15th century (Burke, 2011).

Dickson (2011) reported that availability of computers and electronic services were among the reasons for students’ patronage of academic libraries. He also reported that more than 70% of students indicated that computer access and electronic database articles were the most utilized. In a study by Biradar, Kumar and Mahesh (2012), it was reported that undergraduate students expressed satisfaction with the following electronic services; online, Internet and CD-ROM. The researchers concluded that the expression of satisfaction may be attributed to lack of awareness and inconveniences of use. Adeniran, (2013) also reported on usage of electronic

resources by undergraduate students and found that use e-resources and it positively impacted on their academic performances. The purposes of using e-resources according to him were for research, current awareness, assignment, e-mails, information and news. This showed that electronic information resources were well accepted by the respondents.

In another study, Kattimani (2010) administered structured questionnaires to 80 library users at Honeywell Library, Bangalore, India to establish their awareness level of online information resources. It was found that majority of Internet users used it for projects; for presentations and used library home page, while some users used web-OPAC. Kattimani (2010) noted that the role of the librarian was critical in creating quality awareness of the on-line information resources which included; (i) Need for formal library instruction /online information instruction, (ii) Teach and promote use of advanced searching and (iii) Select databases that have relevance with user community. Library should create awareness through e-mail alert system.

The use of printed and electronic resources presents some obvious challenges. One of the first major challenges to electronic resources was long time preservation. Academic libraries are noted for accumulation and long-time preservation of information resources. Marcum and Friedlander (2012) raised serious concern on long-term preservation question which “represented an early barrier to the acceptance of electronic journals as a form of publication equivalent to print” and because of this, some publishers initially provided free electronic version as add-ons and not as equivalent or in “parallel with print formats.” It was common to find CD versions of the printed copy. The authors emphasized that libraries were well known for preservation of valuable print resources and if libraries become gate keepers, aggregators, editors, and consultants to researchers, leasing rather than purchasing the resources researchers need, who will ensure ongoing access to those resources?. Who will preserve them as part of human culture? Libraries were able to preserve print materials successfully through collections in libraries and by individuals.

In Nigeria, Oyewusi and Oyeboade (2012) reported that academic libraries face problems of “ever increasing population growth, inadequate library facilities, resources and insufficient funding.” This means the deployment of print and electronic resources present serious challenges. Haliso (2011) also identified three factors that could hinder use of ICT in Nigerian academic libraries which include low level of computer culture, poor telecommunications infrastructure and general lack of awareness. Also fundamental to ICT project in libraries is the absence of or inadequate skilled librarians with experience to provide ICT services.

Another challenge of electronic information resources use is the cost implication associated with access and use. Gbaje (2010) reported that out of the ten (10) Nigerian institution surveyed, (8:80%) offered fee based Internet access while only (2:20%) was accessible free. This is another dimension to academic library services, since most of the services offered with print services at the moment are provided free. While it can be argued that storage of printed materials and access do not attract fees because the initial cost of procurement is not passed or charged to the patrons, this cannot be said about e-library resources.

## **Research Methodology**

This study adopted survey design methodology which is a research strategy that involves the collection of data using structured questionnaires, interview and observation. This method is intended to guide the researcher in the activities of collection of data, analyzing and interpretation of the collected data. Its use, allows for generalization from a smaller group to a

larger group. The populations of the study in this research are the users of Kwara State University Library and Kwara State Polytechnic, Ilorin Library.

The total population is described in the table below.

<b>Library</b>	<b>Population</b>
Kwara State University, Malete	5, 420
Kwara State Polytechnic, Ilorin	2, 534
<b>Total</b>	<b>7, 954</b>

Sample is drawn from the users of the two institutions. Using Research Advisor (2006) with 95% level of confidence and 0.001% margin error, the sample size to be adopted for this study is 150.

### **Discussion of Findings**

The response rate from the selected institutions revealed that 126 (84%) copies of the questionnaire were duly completed, returned and used for this analysis out of the 150 questionnaire distributed.

**Table 1: Gender of Respondent**

<b>Gender</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Male	95	73.81%
Female	33	26.19%
<b>Total</b>	<b>126</b>	<b>100%</b>

Table 1 above shows that 93(73.81%) respondents are male while 33(26.19) respondents are female. This implies that there were more male participants than female respondents. This may be attributed to the level of cooperation received from the respondents at the time of administering the questionnaire or mere coincidence since the participants were randomly selected.

**Table 2: Marital Status**

<b>Status</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Single	90	71.4%
Married	36	28.6%
<b>Total</b>	<b>126</b>	<b>100%</b>

**Table 3: College/School of Respondents**

<b>College/School</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Agriculture	8	6.34%
Humanities	5	3.96%
Engineering	10	7.9%
Pure & Applied Science	18	14.28%
Education	20	15.87%
Information & Communication Technology	15	11.91%
Business & Management Studies	30	23.81%
Others (Specify)	20	15.87%
<b>Total</b>	<b>126</b>	<b>100%</b>

Table 3 shows that 30(23.81%) respondents are in college/ school of business and management studies; 18(14.28%) respondents are in College/School of Applied and pure

science, 15(11.91%) respondents are in College/School of Information and Communication Technology, 10(7.9%) respondents are in college/ school of Engineering; 8(6.34%) respondents are in college/school of agriculture; 5(3.96%) respondents are in college/school of humanities while 20(15.87% respondents are in school/college of education and others. This simply indicated that majority of the respondents were in college / school of Business and Management Studies.

**Table 4: Academic Level of Respondents**

Level	Frequency	Percentage (%)
100	-	0%
200	13	10.32%
300	15	11.91%
400	20	15.87%
ND	18	14.28%
HND	30	23.81%
Others	30	23.81%
<b>Total</b>	<b>126</b>	<b>100%</b>

Table 2 above shows that 13(10.32%) respondents are in 200 Level, 15(11.91%) respondents indicated 300Level and 20(15.87%) respondents indicated 400 Level. Also, 18(14.28%) respondents picked National Diploma (ND), 30(14.28%) respondents indicated Higher National Diploma (HND) while 30(23.81%) respondents indicated others.

It can be observed that the responses were higher for 300 and 400 level undergraduate students from the University used. This may probably be because they had spent longer time in the institutions and more familiar with the available information resources and services. In view of this they could easily provide answers to the questions. Also, the 100 level students are just on the verge of gaining admission into the system. The questionnaire were administered in selected institutions in Kwara State University and Kwara State Polytechnic, therefore HND students from the polytechnic are of high percentage

**Table 5: Print and Electronic Information Resources provided by the Institutions Library for students use**

Printing Information Resources	Frequency	Percentage (%)
Text books	126	100.00%
Reference books	117	92.86%
Journals	108	85.71%
Newspapers	117	92.86%
Dictionaries	121	96.03%
Encyclopedias	119	94.44%
Directories	60	47.62%
Maps	119	94.44%
Atlases	109	86.51%
<b>Electronic Information Resource</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Computers	126	100.00%
Databases	17	13.49%
e-journals	12	9.52%

e-newspapers	21	16.67%
CD-ROM	7	5.56%
Internet Access	126	100.00%
Wireless Internet	84	66.67%
Library portal	0	0.00%
Dedicated library websites	0	0.00%

Table 5 above, it can be observed that a high percentage of respondents indicated that print information resources were more available for undergraduate students' use in the academic libraries. This is supported by 126(100%) responses for textbooks, 121(96.03%) for dictionaries and 119(94.44%) for encyclopedias and atlases. This finding is also in consonance with Popoola and Haliso (2009) report that printed information materials are important information resources and still utilized by undergraduate students. It also shows that newspapers and reference books recorded 117(92.86%) responses each. From this table, directories recorded the lowest frequency of 60(47.62%) responses. The remaining print information resources recorded frequency of 108(85.71%) responses and above. The low rating for directories may be attributed to lesser use among undergraduate students.

Also from the table above on the responses to electronic information resources which were generally low compared with responses to print information resources. This can be seen from the frequencies to electronic resources such as databases 17(13.49%), e-journals 12(9.52%) and CR-ROM 7(5.56%). However, respondents rated the availability of access platforms such as computers and Internet access and wireless Internet very high as indicated by 126(100.0%), 126(100%) and 84(66.67%) respectively.

It can be observed that library portal and dedicated library website recorded zero responses. The responses also indicated that electronic access platforms were provided but many of the electronic information resources listed were not available. This shows that the academic libraries did not provide electronic information resources. The academic libraries provided computers and Internet access without providing customized or aggregating electronic resources and services like creating links to web based electronic resources, databases and other electronic libraries services for undergraduate student users. The undergraduate students rated the availability of computers, wireless Internet and Internet access very high

**Table 6: Level of satisfaction with print and electronic resources provided by institutions libraries**

**Key: High (H), Moderate (M), Low (L), None (N)**

Level of Satisfaction	H	M	L	N	Total
Textbook	80 63.5%	46 36.5%	-	-	126 100%
Dictionaries	-	90 71.4%	36 28.6%	-	126 100%
Journals	30 23.8%	80 63.5%	16 12.7%	-	126 100%
Newspapers	40 31.7%	50 39.7%	30 23.8%	6 4.8%	126 100%
Research Works	50 39.7%	70 55.6%	6 4.8%	-	126 100%

Encyclopedia	10 7.9%	5 3.9%	96 76.2%	5 3.9%	126 100%
Maps	-	-	10 7.9%	116 92.1%	126 100%
Directories	-	-	5 3.9%	121 96%	126 100%
<b>Electronic Resources</b>	<b>H</b>	<b>M</b>	<b>L</b>	<b>N</b>	
Computers	90 71.4%	36 28.6%	-	-	126 100%
Databases	80 63.5%	46 36.5%	-	-	126 100%
E-Journals	30 23.8%	80 63.5%	16 12.7%	-	126 100%
e-newspaper	-	90 71.4%	36 28.6%	-	126 100%
CD – ROMS	-	-	10 7.9%	116 92.1%	126 100%
E-encyclopedia	-	-	5 3.9%	121 96%	126 100%

Table 6 shows that level of satisfaction with print and electronic resources provided by the institution libraries. It was revealed that the level of satisfaction on textbooks (63.5%), computers (71.4%) and databases (63.5%) are high; level of satisfaction on dictionaries (71.4%), journal (63.5%), research works (55,6% ), e-journals ( 63.5%) and e-newspaper ( 71.4%) are moderate; level of satisfaction on encyclopedia ( 92.1%) is low while the level of satisfaction on maps (92.1%), directories ( 96%), CD-ROMS ( 92.1%) and e-encyclopedia (96%) are none.

From the analysis, it could be deduced that level of satisfaction on the print and electronic resources are moderate. The students lay more emphasis on the information resources they are familiar with which include textbooks, computers, databases, dictionaries, journals, research work and e-journals. Meanwhile, there were low satisfaction on maps, directories, CD-ROMS and e-encyclopedia.

**Table 7: Challenges faced by students in using Print and Electronic Resources available in the institutions libraries**

<b>Challenges</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Lack of Awareness of Available Resources	86	68.25%
Obsolete Books	73	57.94%
Un-conducive environment for reading	7	5.56%
Overcrowding	15	11.90%
Excessive control/ library rules	9	7.14%
Inconvenient opening hour	25	19.84%
Inadequate relevant books	70	55.56%
Residence too far from library	21	16.67%
<b>Challenges of using ER</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Lack of awareness of available resources	84	66.67%
Lack of computer knowledge/skills	32	25.40%

Inadequate computer systems	43	34.13%
Very slow network	63	50.00%
High cost of Internet Access	18	14.29%
Constant power failure	60	47.62%
Unstable Internet connectivity	93	73.02%

Table 7 above, top three challenges of print information resources utilization that can be observed from the responses of undergraduate students' users of the academic libraries include Lack of awareness of available print resources recorded 86(68.25%) responses, obsolete books 73(57.94%) responses and inadequate relevant books recorded 70(55.56%) responses. The responses also indicated that library books were obsolete and this might explain the reason why the respondents indicated that the books were not relevant. 25 (19.84%) respondents said inconvenient opening hour, 15 (11.90%) respondents chose Overcrowding, 21(16.67%) respondents indicated Residence too far from library while 7(5.56%) said un-conducive environment for reading are also challenges Utilization of Print Information Resources by Undergraduate Students in Academic Libraries.

It also indicated the challenges faced by undergraduate students when using electronic information resources the most critical challenges include unstable Internet connectivity which recorded 93(93.02%) responses, lack of awareness of available electronic services was scored 84(66.67%), very slow network recorded 63(50.00%) responses and constant power failure was scored 60(47.62%). Other challenges that could be observed include inadequate computer systems and lack of computer knowledge/skills as represented by 43(34.13%) and 32(25.40%) respectively. These challenges were glaring because of the high patronage of computers and Internet access. The challenges of poor and inadequate Internet facilities in this study also agrees with findings of Haliso (2011) on the impact of slow bandwidth and unstable power supply on the provision of Internet services in academic libraries.

### Summary of Major Findings

After careful and critical analysis of data collected from the respondents, the following major findings were established from the study.

1. The print information resources provided in the academic libraries include textbooks, reference books, journals and newspapers. Others are encyclopedias, maps and atlases. The academic libraries provided platforms such as computers, Internet access and wireless Internet without providing any significant electronic information resources.
2. The study revealed that academic libraries provided computers and Internet access without providing customized or aggregating electronic resources and services like creating links to web based electronic resources, databases and other electronic libraries services for undergraduate student users. The undergraduate students rated the availability of computers, wireless Internet and Internet access very high
3. The study further revealed that students lay more emphasis on the information resources they are familiar with which include textbooks, computers, databases, dictionaries, journals, research work and e-journals. Meanwhile, there were low satisfaction on maps, directories, CD-ROMS and e-encyclopedia.
4. The study further identify some challenges faced by students in using Print and Electronic Resources available in the institutions libraries to include lack of awareness of available resources; obsolete books; lack of awareness of available resources; inadequate relevant books; unstable internet connectivity; slow network among others.

## **Conclusions**

It can be deduced from the analysis and summary of major findings that students made adequate utilization of print information resources of their academic libraries. However, many of the students were not satisfied with some of the print and electronic information resources provided by their academic libraries. The respondents suggested that academic libraries should provide more information resources. They also expressed lack of awareness of print and electronic information resources which obviously pointed clearly to the deficiencies of student's skills in conducting searches in information resources and the need for training.

The library information resources are predominantly printed information materials and students are desirous of both print and electronic information facilities in their academic libraries. The respondents faced some challenges of print and electronic information resources and services in the academic libraries. The print information resources are still useful and patronized by undergraduate students of these institutions, while the provisions of electronic information resources by academic libraries are still a far cry from being realized.

## **Recommendations**

In the light of the findings of this study, the following recommendations are made:

1. The academic libraries should continue to procure current and relevant print information resources because they are required and patronized by students. The academic libraries should provide electronic information resources to complement printed information resources because electronic information resources have not only become important sources of information for academic library users but highly demanded.
2. Academic libraries and subsequent ownership – the Federal and State Governments should strive to improve more on the information resources provided in their libraries in order to raise the level of satisfaction with print and electronic information resources.
3. They should also intensify training in print and electronic information resources to increase the capacity of students in the utilization of information resources and services. The libraries should consider point of use assistance to complement the theoretical learning in the classroom.
4. Academic institutions should continue to provide print services and also to emphasis on providing value added electronic information services to undergraduate students beyond providing computers and access to online public Internet as is currently done by the two academic libraries. The value added electronic services that academic libraries should focus on include deployment of electronic library resources and services, OPAC, web OPAC, library portal, databases, e-books and link to other libraries on the net.
5. The academic libraries should conduct training as means to increase print and electronic information resources awareness, access and use. The students belong to the Net generation or culture and they are interested in fastness and remote access which can only be provided in ICT-driven information services delivery environment.
6. The academic libraries should provide current and adequate print information resources for the programmes. The solution to the challenges of poor power supply could be achieved by providing alternative power sources like Electric generators, solar power energy and Inverters to support the electronic information services of these academic libraries. The assistance of Mobile Network Information Providers should be considered so as to facilitate for low price high bandwidth subscription.

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