# Problems and Prospects on the Use of Electronic Information Resources by Academic Library Clientele

*By*

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## Abstract

*The study is to investigate the problems and prospects on the use of electronic information resources by Academic Library Clientele in two selected Academic Libraries with focus on River State University Library and Anambra State College of Health Technology Library. The study adopted a descriptive survey research design using two research questions. The population of the study consisted of six thousand three hundred and forty-four (6,344)Library users, out of which four hundred and fifty-eight (458) were selected as sample size while three hundred and ninety-two (392) were finally collated for the study. The instrument for data collection was a structured questionnaire titled, the problems and prospects on the use of electronic information resources(PPEIR). Data were analysed using mean rating and standard deviation. The findings revealed that poor maintenance, inadequate power supply, insufficient computers amongst others as part of the problem while recommendation on adequate staffing, sufficient ICT facilities amongst others, be provided, to enhance the use of Electronic Information Resources (EIR) in Academic Libraries for posterity.*

***Keywords:*** *Academic Libraries, Electronic Information Resources, ICT, Higher learning Information.*

**Introduction**

The importance of electronic libraries in area of information and knowledge provisions to human resources in all sphere of life cannot be over–emphasized. This is because of the functions of the academic libraries which is to provide information resources and services for its users. University libraries all over the world are facing the challenge of the paradigm shift from the traditional environment to the electronic environment. In the electronic environment, these libraries are expected to provide information resources in a variety of formats and provide innovative services to their users. They are expected to provide sufficient e-resources to meet the ever increasing demands of users. An electronic information resources are that information resources that can be accessed through the use of internet(Okore,2009). Accessibility of these resources are re-defining the vision and mission of university libraries today. The electronic information resources do not fly into the library or do not find themselves into the library by accident, they passed through a coordinated effort of selection, acquisition, cataloguing and classification as a key aspect of the library profession. However, literature has shown that majority of the libraries in the developing countries do not have enough of the electronic information resources for their users (Aguolu & Aguolu,2002) and this, implies that there may be certain factors that hinder the development and use of the electronic information resources in academic libraries in developing economies.

The advent of the new technology has taken precedent over the old or traditional method of accessing information, where electronic information resources seems to outweigh that of the traditional printed materials as students being dynamic, needs to move on with the changes in their environment otherwise, they will lose the trend or be left behind. Electronic information resources have given students so much new hope of continuing their programme without much stress. The last few years have seen a number of changes in the tertiary education sector, which have exerted much pressure upon the traditional role of the academic library. For instance, the growth in non-conventional students such as: part-time and other students who have different information needs and expectations from that of an eighteen (18) year old school leaver; inflation in the cost of printed materials; growing number of academic publication and declining library budget as percentage of the total institutional budget. Also are changes in teaching, learning and research methods toward a greater emphasis on students and research works centred on learning and changes in curriculum and daily technology advancement. These later changes, significantly increases the amount within library

and information services, making it cost and resulting in the demand for information skills and training for both staff and students. It is also causing a radical transformation within library and information services; involving a shift from an original emphasis upon holding materials toward the importance of being a gateway to networked information that is providing an access to information rather than just holding these information.

Students constitute part of the society, whom are fortunate to have access to varieties of electronic information resources. Mostly, in developed countries, universities use considerable proportion of their budgets to provide the technology for their students to assist in their learning process. However, this may bring about the question, how do students feel about availability of electronic information resources which may require the acquisition of new skills to be effectively utilized? This is about students' attitudes towards this form of information provision and without a better understanding it may be difficult for service providers to identify if they are meeting or satisfying the information needs of the user's effectively.

The opportunities provided by electronic information resources can never be over emphasized as they are many. They offer today's academic library users different opportunities from their predecessors. The advantages of networking for the users are as follows:

(a) The information needed can be delivered from the most appropriate source to the user if the user can specify his/her needs dynamically;

(b) The information is obtained when it is needed,so it comes just in time rather just in case;

(c) The users selects only the information needed, to answer the specific questions;

(d) The information is only stored, if users desires to access it. Therefore electronic information resources can be acquired to provide a number of advantages over the traditional printed based resources. These advantages include the fact that electronic information resources are faster, than consulting the printed indexes especially when searching retrospectively.

Therefore, it is obvious that libraries all over the world and particularly in Nigeria are challenged with issues such as paucity of funding to acquire information resources in print form, and even

subscribe to electronic resources; competent or skilled library professionals suitable for this digital era, especially in this steady emergence of different Library innovations are also inadequate. Hardware and software related problems, human resources to maintain the technologies effectively as well as power supply instability are potentially a big challenge and these has a great implication for effective library services (Omekwu, 2002). Making electronic information resources and services available for use by students and other users are very vital despite all these challenges. Access to electronic information resources such as databases, electronic journal (e-journal), electronic book (e- book) alerting services, special collections, CD-ROM, online reference tools needs to be made accessible by libraries for these, improves the quality of teaching and research (Lee, 2008). Electronic information resources (EIRs) is very vital to library users, they are characterised by the electronic materials they contain, which allows access to the biggest possible number of periodicals, reports and statistics in academic fields (Hughes, 2013). It offers services that facilitates gaining information in a few moments unlike traditional method that would take weeks and in some cases months (Hostager. 2014). Not only in terms of time, electronic information resources creates direct access to the materials by printing, downloading or sending them by email. It offers a big number of digital information for it users faster than doing it manually through the printed materials (Andrews &Eade,2013). Furthermore, electronic searches help discovery of some information that could not be obtained through the traditional method. The field of scientific research makes good use of these electronic ways as they help facilitate continuous communication among researchers and gain updating to new discoveries (Taffs & Holt, 2013). It also improve learning and teaching processes in addition to extra curricula activities. They come in different formats as a result of the fast growth of Information Communication Technology (ICT). Students, researchers and staff members of institutions supports their teaching, learning and research programs by the effective utilization of EIRs. EIRs consist of various non-print and non-paper based materials which are used to retrieve and disseminate information. These resources includes the compact disk-Read Only Memory (CD-ROM), online databases, digital versatile disc (DVD), internet/www and virtual collections contained on the web.

The main purpose and existence of Libraries is for effective knowledge management, information processing and dissemination. They see to the inclusion of all, irrespective of any status, they try as much as possible to enhance education by making information available and

accessible to all. Changing environment of academic libraries has impacted significantly on the knowledge, and skills requirements of library roles and the current trends in librarianship is simply the nature of trends in our current technological and educational environment. Most things we ordinarily do manually now has an electronical and faster way of application with the use of electronic gadgets which go a long way in making our library routines less tedious and more productive. The high engagement of students with smart gadgets, surfing internet resources while landing in fake information due to limited information literacy skills, creates the full relevance of Library services as they try as much as possible to provide new products and services that would certainly meet its community's curriculum as well as be able to quench different individual's information needs. Use of electronic and other online resources maintains a collaborative and respectful culture where students with any status are presumed to be competent, develop positive social relationships with peers, and are fully participating members of the school community. The timely intervention in information handling and dissemination is aided through the new technological inventions of ICT, which aid the availability of electronic resources.

The use of ICT has the potential to radically alter our very social structure and mode of operation, and this social change will in turn force our educational institutions to react and change as well. ICT significantly changes the way learning is conducted with the increase of information and communication technologies for Information delivery, instructional design and technology supported learning(Barclay, 2001). With the development of information technology, electronic resources are now available for use in libraries. New trends in the computer technology are allowing libraries to do things with more efficient and effective tools (Liew, Foo, and Chennupati, 2000; Harper et al., 2006) as concurred by Kennedy (2008), that not only does the quality of literature double every ten-years but libraries see the pieces of scholarly risk, by over ten percent (10%) each year. Academic libraries all over the world are expected to provide information resources in a variety of formats and provide innovative services to their users. In other words, they are expected to provide abundant E-resources to meet the ever increasing demands of users (Okore et al., 2009). The pace at which information resources are being produced and converted into electronic formats is greater today than in previous years (Armstrong et al., 2001). In today's information age it would seem that library users would not only be eager to take advantage of the convenience electronic resources have to offer, but

would be fully immersed in the new technologies (Elam, 2007). Electronic information resources offer today's students new opportunities not available to previous generations.

However, knowledge on computer and retrieval techniques is needed to search these resources effectively. It therefore becomes necessary that the students' computer skills, to be able to access the library electronic information resources, should be determined (Okello-Obura & Magara, 2008). Tella et al. (2007) noted that students' ability to find and retrieve information effectively is a transferable skill, useful for their future lives as well as enabling the positive and successful use of academic electronic resources. The ability to explore the digital environment is a requirement for academic success today. Students are increasingly expected to use electronic information resources at the university. In order to make use of the growing range of electronic resources, students must acquire and practice the skills necessary to exploit them. Therefore, it has become very relevant to investigate the problems and prospects on the use of electronic information resources by Academic clientele for an effective follow up on the current trends in delivering of library services.

**Literature Review**

There are great deal of literature devoted to different types of electronic resources. However, very few is written on electronic information resources and its problems and prospects. Efforts were made in the literature to present the problems and prospects of electronic information resources from the use of these resources in libraries by staff, students and researchers. Many academic libraries have embraced the use of electronic information resources (EIRs), including CD-ROM, the internet, and the World Wide Web (www) for provision of information services. A number of reasons have been advanced for preference of EIRs by libraries. Some of these reasons, according to Iwehabuna (2009), he includes the ability to provide faster and access to current information by users in various places such as homes, offices and other workplaces, hostels and dormitories, easy storage and the possibility of sharing the same information resources among many users at a time, saving space with relatively easy maintenance and easy linkage to indexing and abstracting databases, newspapers and other sources.

It offers students, the opportunity to control their learning and helps them to have interactions with information pertaining to their needs (Jones et al. 2002; Healey, 2003).Electronic information resources are used for academic and research activities in higher educational

institutions (Iwehabura, 2009). Internet resources such as online databases, e-book and e-journals were among the EIRs used for academic purposes. Other sources found to be used were CD-ROMs and OPAC (Online Public Access Catalogue). Kinengyere (2007) has shown that the available information is under-utilized. The study also shows that information availability does not mean actual use because the users may not be aware of the availability of such resources, do not know how to access them or do not know what the resources offer. Generally, literature has shown that there is a positive relationship between the use of electronic information resources and improvement in the quality and quantity of research output. Manda and Nawe (2009) stated that his relationship is influenced by several factors such as technology, infrastructure, nature of the organization and individual attributes. Nawe and Kiondo (2005) has shown that 21.7%of the respondent reported that research quality has improved significantly with the use of electronic information resources. Results of the study also revealed that quality of teaching and learning had improved significantly as a result of information and communication technology (ICT) application in library operation.

Meanwhile, despite the importance of and advantages offered by EIRs, studies has identified a number of problems associated with their use. These problems range from lack of appropriate skills among users. For instance, Ray and Day (1998) noted that the main factors affecting students' access to electronic information and using them were limited to time and lack of effective information retrieval skills. The use of EIRs in educational institutions is further affected by lack of technical supports staff, IT infrastructure and training. In addition Johnston and McCormack (1996)posit that: " a perceived lack of various resources such as time, equipment or funds, risks associated with implementing innovations in teaching, particularly those using technologies, are the most significant barriers to academic staff using information technology in their teaching. While other researchers have shown that the use of the internet and other EIRs by students was limited by inadequate number of computers and access points (Malekani, 2006; Luambano and Nawe, 2004; Jagboro, 2003),Hung argues that lack of skills in searching the internet is one of the limitations that affect its proper utilization (Hung, 2004). This explains why students limit themselves to searching for and reviewing information on entertainment, sports and news from around the world instead of using the internet for academic matters. The study of iwehabura (2009) in some aspects, including searching and evaluation affected the use of various EIRs in Tanzanian University libraries. The

study recommended the development of ICT infrastructures, that librarians and teaching staff become role models and mentors to students in using EIRs, and that teaching staff adopt an active learning and student-centred approach in their teaching as well as intervention measures for improving students' skills in EIRs.

The only paper related to electronic information resources was Okoye and Ugwuanyi's (2012)paper. This paper examined the management functions performed by cataloguers in the management of EIRs in Nigerian university libraries. The recommendations made were based on the challenges and strategies identified. Bothmann and Holmbery (2006), identified the challenges of electronic resources in libraries as consisting of planning challenges were found to include staffing, budgeting, change, communication and management tools. In addition, the barriers to policy development were identified as change, decision making and communication. It must be emphasized that how reach of these factors affect the management of electronic information resources in university libraries is yet to be emphatically determined in the literature. The present study is an attempt to address this issue. While discussing the challenges of prospects of EIRs in libraries, Okoye and Ugwuanyi (2012) identified skills, acquisition, budgeting and communication as major challenges. They summarized the situation in Nigerian university libraries thus; "the situation in the present study is that there are no librarians designated on EIRs librarian functions, particularly unique to electronic resources such as licensing, access set-up, link maintenance, inter-database linking are either non-existence or are at their embryonic stages of implementation. Few electronic management services available are done by professionals". On the strategies for changing the situation, Okoye and Ugwuanyi (2012) were of the opinion that institutions should provide fund and that library schools in Nigeria should provide pragmatic training to students and libraries to enable them to handle e-resources. Kanyengo (2006) maintained that for effective management of digital resources in Africa, efforts should be focused on funding creating enabling policy framework and training of staff.

**Statement of Problem**

The provision of electronic information resources to make them readily available for use by Academic library clientele seems to be lacking or inadequate. The outrageous importance for effective follow up on the rapid emerging trends in Library service delivery seems most affected due to none or inadequate utilization of electronic information

resources in the library by its clientele despite the provision and availability of the very resources in their various academic libraries. Students in most cases, exhibit phobia in the usage of some technological gadgets in the libraries. Besides, there seems to be low level of information literacy, lack of awareness, poor information search skills and inadequate provision of the right types of resources inhabits students' academic performance. For these reasons, this paper investigates the problems and prospects on the use of electronic information resources by Academic clientele in two selected Academic Libraries.

## Objective of the Study

\* To identify the militating factors effecting the use of Electronic Information Resources in the academic libraries studied.

\* To suggest ways of improving the utilization of electronic information resources for a follow up on the rapid emerging trends in library service delivery.

## Research Questions

1. What militating factor affects the use of electronic information resources in the academic libraries studied?

2. What are the ways of improving the use of EIRs for a follow up on the rapid emerging trends in service delivery?

## Scope of the Study

The scope studied the problems and prospects on the use of electronic Information Resources by Academic Library Clientele in Rivers State University Library, Port- Harcourt and Anambra State College of Health Technology Library, Obosi. It investigated the problems that affects the use of electronic information resources and the ways to improve the use of the EIRs fora follow up on the rapid emerging trends in library service delivery.

## Methods

This study adopted descriptive survey research design. Two research question were asked and the population of the study consisted of 6,344 of Academic library clientele in Rivers State University Library and Anambra College of Health Technology Library. The instrument for data collection was a structured questionnaire titled, problems and

prospects on the use of electronic information resources (PPEIR). A random sampling technique was adopted to cover the two libraries. Four hundred and fifty eight (458) copies of questionnaire were distributed, covering two hundred and twenty nine (229) in each library. A total of (392) questionnaires were duly filled and used for the study. Data were analysed using mean rating and standard deviation.

## Result

### Research Question I

What militating factor affects the use of EIRs available in the Academic libraries studied? This research question is in line with the objective 1 which sought to identify the factors affecting the use of electronic information resources in the Academic libraries studied. Responses are presented in table 1.

**Table 1:** Mean rating and standard deviation on factors affecting the use of electronic information resources available in the libraries studied.

### N =392

| SN | Problems of EIRS | Responses | | | | | |
|---|---|---|---|---|---|---|---|
| | | Strongly agree | Agree | Disagree | Strongly disagree | Mean | SD |
| 1. | Inadequate ICT facilities | 84 (21.4) | 189 (48.2) | 118 (30.1) | 1 (.3) | 2.91 | 0.72 |
| 2. | Inadequate funding | 136 (34.7) | 218 (55.6) | 38 (9.7) | 0 (0.0) | 3.25 | 0.62 |
| 3. | Poor maintenance | 128 (32.7) | 261 (66.6) | 2 (.5) | 1 (.3) | 3.32 | 0.49 |
| 4. | Inadequate power supply | 124 (31.6) | 267 (68.1) | 1 (.3) | 0 (0.0) | 3.31 | 0.48 |
| 5. | Internet low speed | 108 (27.6) | 165 (42.1) | 112 (28.6) | 7 (1.8) | 2.95 | 0.80 |
| 6. | Website inaccessibility | 52 (13.3) | 86 (21.9) | 165 (42.1) | 89 (22.7) | 2.26 | 0.96 |
| 7. | Staff negative attitude | 57 (14.5) | 198 (50.5) | 136 (34.7) | 1 (.3) | 2.79 | 0.68 |
| 8. | Lack of ICT skills | 103 (26.3) | 158 (40.3) | 87 (22.2) | 44 (11.2) | 2.82 | 0.95 |
| 9. | Insufficient computers | 107 (27.3) | 85 (21.7) | 167 (42.6) | 33 (8.4) | 2.68 | 0.97 |
| | Grand mean and SD | | | | | 2.92 | 0.74 |

Table 1 shows the mean rating and standard deviation on problems of electronic information resources in the two Academic Libraries. It further shows that poor maintenance was the most cogent problem militating against the use of electronic information resources available in the Academic Libraries studied (=3.32). This was followed by inadequate

power is (=3.31). The least problem was insufficient computers (=2.68). Website inaccessibility (=2.26) was rated below the criterion mean cut of 2.5 and hence are not a problem. The overall mean rating over the problems on the use of electronic information resources in the two academic libraries were moderate ( =2.92).

**Research Question 2:** What are the ways of improving the use of electronic information resources fora follow up on the rapid emerging trends in Library service delivery? This research question is in line with the objective 2 which sought to identify the ways of improving use of electronic information resources in the Academic libraries studied. Responses are presented in Table 2

**Table 2:** Mean rating and standard deviation on ways of improving the use of electronic information resources fora follow up on the rapid emerging trends in Library service delivery.

| SN | Solutions of EIRS | Responses | | | | | |
|----|-------------------|-----------------|------------|-------------|----------------------|------|------|
| | | Strongly agree | Agree | Disagree | Strongly disagree | Mean | SD |
| 1. | Acquisition of ICT skill | 153(39.0) | 135(34.4) | 104 (26.5) | 0(0.0) | 3.13 | 0.80 |
| 2. | Equipping department with adequate ICT facilities | 120 (30.6) | 197 (50.3) | 75 (19.1) | 0(0.0) | 3.11 | 0.70 |
| 3. | Improving the broadband speed | 126 (32.1) | 264 (67.3) | 2 (.5) | 0(0.0) | 3.32 | 0.48 |
| 4. | Frequency of -use of EIRS | 135 (34,4) | 257 (65.6) | 0(0.0) | 0(0.0) | 3.34 | 0.48 |
| 5. | Adequate staffing | 296 (75.5) | 83 (21.2) | 13 (3.3) | 0(0.0) | 3.72 | 0.52 |
| | Grand mean and SD | | | | | 3.32 | 0.59 |

Table 2 shows mean rating and standard deviation on ways of improving the use of electronic information resources for a follow up on the rapid emerging trends in Library service delivery. It further shows that adequate staffing was the most important ways to improve the use of electronic information resources in most academic libraries (=3.72). This was followed by the frequency of use of EIRS (=3.34). The least was Equipping department with adequate ICT facilities (=3.11). The overall mean rating shows that ways of improving the use of electronic

information resources in these Academic Libraries, was high with mean score of (=3.32).

**Discussion of Findings**

**The factors militating against the use of electronic information resources available in the Academic Libraries studied**

The result shows that poor maintenance was the most cogent problem militating against the use of electronic information resources available in the Academic libraries studied. This was followed by inadequate power supply. The least problem was insufficient computers. Website inaccessibility was rated below the criterion mean cut of 2.5 and hence is not a problem. The overall mean rating over the problems of electronic information resources for a follow up on the rapid emerging trends in Library service delivery. This finding is in agreement with an earlier work by Daniel and et al (2004) found that since maintenance is a vital issue for ICT project, an attempt was made whether there is any of such, maintenance of equipment in the library. It was found that 5 or 12.5% of the libraries studied stated yes. While the remaining 35 or 87.5 percent respondents said no. The response has shown that a host of library do not have maintenance agreement, thus it is not a surprise that most of the projects are not succeeding. This is considered a ban on the suitability of ICT in most libraries, economic system, lack of relevant information material and lack of information technologies. This confirmed Madu and Adeniran (2005) observation that capital is one of the problems that militates against the use of information technologies for the purpose of improving delivery of information to users.

**The ways of improving the use of electronic information resources in the two selected academic libraries**

The result shows that adequate staffing was the most important way to improve the use of electronic information resources in the academic libraries studied. This was followed by the frequency on the use of EIRS. The least was Equipping department with adequate ICT facilities. The overall mean rating shows that ways of improving the use of electronic information resources for a follow up on the rapid emerging trends in Library service delivery was high. This finding' is in agreement with an earlier work by Aina (2007) which found that staff would be the driving force of the programme. Thus it is appropriate to recruit professionally for the leadership level of the schools. The non-academic staff will consist of at least one ICT trained technician. As a matter of

policy, all lecturers / non lecturers recruited into the library school must be computer literate.

## Summary of Findings

1. Poor maintenance was the most cogent problem militating against the use of electronic information resources available in the academic Libraries studied (=3.32). This was followed by inadequate power supply (=3.31). The least problem was insufficient computers (=2.68). Website inaccessibility (=2.26) was rated below the criterion mean cut of 2.5 and hence are not a problem. The overall mean rating over the factors affecting the use of electronic information resources in the two academic libraries were moderate at (=2.92).

2. Adequate staffing was the most important ways to improve the use of electronic information resources in the libraries (=3, 72). This was followed by the frequency of use, of EIRS (=3.34). The least was Equipping department with adequate ICT facilities (=3.11). The overall mean rating shows that ways of improving the use of electronic information resources in the two libraries were (=3.32).

## Conclusion

Based on the findings of the study, it could be concluded that the major problem of the use of EIRs was poor maintenance culture. The key solution was adequate staffing. Skilled personnel is needed to aid in the effective use of these Electronic Information Resources which would lead to a better productivity in all round implementations of the currents trends in library service delivery. Electronic information which was established in making sure information travels far and wide and making the world a global village, goes as far in making information explosive both in collaboration and networking, linking people from all spheres of life and creating a greater information resource visibility, would go a long way in inculcating good retrieval skills around the globe.

## Recommendation

Based on the findings of the study, the following recommendations were made;

1. The staff should go for acquisition of ICT skills for improvement in the management of the EIRs.

2.  The departments should be adequately equipped    with modern ICT facilities.

3.  Adequate number of skilled staff should be employed and provision should be made for retraining programmes to keep abreast with the ever changing   technology.

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