Awareness and Use of Electronic Resources by Undergraduate Students at Kabale University, Uganda

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Abstract
The paper focused on the awareness and use of electronic resources by undergraduate students at Kabale University. It discusses the importance of electronic resources and types of electronic resources; survey research design was adopted for the study and the instrument used for data collection was questionnaire. The target population of this study comprises 2, 600 undergraduate's students who are duly registered at Kabale University library for the 2018/2019 academic session. A total of 475 of the total population were drawn using a random sampling technique. 475 questionnaires were distributed to the respondents and a total of 469 was duly completed and found usable, which gave 99% response rate. The data collected for this study was analyzed using simple percentage and frequency counts. The study revealed that electronic resources have tremendous impacts on the undergraduate's students in the course of their academic pursuit. The study also revealed that majority of the respondents makes use of electronic resources on a weekly basis. However, the major challenge undergraduates face with the use of electronic resources is lack of adequate training, followed by lack of expert help while some others complained of slow internet connectivity.

Keywords: Academic Libraries; E-Resources; Library Use; User Awareness.

Introduction

Electronic resources are non-print materials that are accessible through the Internet via computer terminals. According to Madondo, Sitho and Collen (2017) "Electronic resources refer to those materials that require computer access, whether through a personal computer, mainframe, or smart technologies". Dhanavandan and Tamizhchelvan (2012) cited in Madondo, Sitho and Collen (2017), further noted that an e-resource is a resource which requires computer access or any electronic facilities that delivers a collection of data, be it text referring to full text databases, electronic journals, monographs, news items, image collections, other multimedia products and numerical, graphical or time based, and a commercially available title that has been published with an aim to being marketed". Traditionally, electronic resources are essential part of academic and other types of libraries were collections of books, manuscripts, journals, and other sources of recorded information in print formats. From the primordial time libraries have increasingly developed their resources from print resources into a provider of electronic information resources and services that are in the virtual space, with the advent of Internet and the emergence of Information and Communication Technology in the library. This is one of the most significant development in library which has teaching, research and scholarly communication in our higher institutions (Egberongbe, 2011). The study of electronic resources in this ICT driven academic era is very vital, particularly in an ICT environment where students have access to information resources within their comfort zone.

Objectives of the Study

The general objective of this study was to ascertain the awareness and use of electronic resources by undergraduate students at Kabale University. The specific objectives are to:
    i. Investigate students' awareness of electronic resources
    ii. Determine the use of electronic resources by students of Kabale University
    iii. Find out the frequency of use of electronic resources by students of Kabale University
    iv. Ascertain factors affecting the use of e- resources by students of Kabale University

Research Questions

The research provided answer to the following questions:
    i. What is the extent of undergraduate students' awareness of electronic resources in the library?
    ii. What is the purpose for undergraduate students' use of electronic resources?
    iii. What is the frequency of use of electronic resources by undergraduate students?

    iv.   What are the challenges faced by undergraduate students in the use of electronic resources?

Literature Reviews

Electronic information resources have become part of library resources in this present age of ICT globalization in all academic institution. According to Owholabi, Idowu, Okocha and Ogundare (2016) ICT has momentous changes in the way learning is conducted with the increase of information and communication technologies for instructional design, delivery and technology supported learning. One major department of an academic library is the electronic library department which offers electronic information resource sharing. An electronic library also referred to as a digital library is a collection of documents in organized electronic form, available on the internet or on CD-ROM disk, depending on the specific library, a user may be able to access magazine articles, books, papers, images, sound files, and videos (TechTarget, 2016). An electronic library store and manage electronic resources in diverse formats. Electronic resources according to Staffordshire University (2014) include electronic journals, online databases and electronic books. Electronic resources also include, indexes, electronic books and texts, electronic journals, library catalogs, reference sources, statistical sources, sound recordings and image databases which may include art, maps, medical, etc. (University of Chicago Library, 2014). There are different types of electronic resources in University Libraries that are met to compliment the print resources; these electronic resources are catalyst in the teaching and learning process. The University of Chicago Library listed some of the electronic information resources that should be available at every academic library as noted by (Omeluzor, Saturday and Ogo, 2018) to include:

  i.   CD ROM: is one of the oldest pre-pressed optical compact discs which is used to store data. The name is an acronym which stands for "Compact Disc Read-Only Memory". Computers can read CD-ROMs, but cannot write on the CD-ROM's which are not writable or erasable. Until the mid-2000s, CD-ROMs were popularly used to distribute software for computers and video game consoles. Some CDs, called enhanced CDs, hold both computer data and audio with the latter capable of being played on a CD player, while data (such as software or digital video) is only usable on a computer (such as ISO 9660 format PC CD-ROMs).

  ii.   Electronic Books: Libraries now provides access to a variety of electronic books, as well as the other printed works (such as essays, poems, or historical documents). Some of these electronic books and texts are part of large, searchable databases.

 iii.   Electronic Journals: Most academic libraries now have an offline E-Journals Database to help you find journal materials that is useful to users and an online version of e-journals which the library subscribe to have access to current journal publication.

 iv.   Online Database: Is a web-based filing system designed to store information. It is a database accessible from a network, including from the Internet. Most academic libraries now subscribe to online databases of books and journals that are relevant to the University curriculum which will help to facilitate teaching and learning in the University environment.

 v.   Online Sources: Online sources are materials that are available online. It can be an online newspaper, magazine or television website such as NBC or CNN. Peer-reviewed journals, webpages, forums and blogs are also online sources. Some other names for online sources are 'electronic' sources, 'web' sources and 'internet' sources. These are very useful electronic information resources which many libraries are now making available to satisfy the urgent needs of their user community (Omeluzor, Saturday and Ogo, 2018).

Access to e-resources may not have been feasible if not the emergence of internet. The internet and its related technologies have contributed to access and proliferation of electronic information resources, because the Web has witnessed a tremendous increase in the quantity of all types of electronic publications. Accordingly, Bankole, Ajiboye and Otunla (2015) also stated that Electronic Information Resources consists of information resources provided in electronic formats such as internet, CDROM databases, e-books e-journals, Online database, Online Public Access Catalogues and other computer – based electronic networks. Electronic information resources are now a major resource in every university library and it has significantly

transformed information handling and management in academic environments, particularly University libraries. Several studies have been conducted on undergraduate's awareness and use of e- resources in academic libraries. Baro, Endouware and Ubogu (2011) carried out a study on the awareness and use of online information resources by medical students at Delta State University in Nigeria. The study revealed that majority of the students are not aware and do not use the online information resources such as, MEDLINE, HINARI, CINAHL databases, NUC virtual library as sources of information to retrieve materials related to medical literature. Daramola (2016) also studied the perception and utilization of electronic resources by undergraduate students at Federal University of Technology Library, Akure. The findings revealed that the e-resource frequently used are e-journals, e-book and e-magazines and reported that despite students have positive perception of the e-resources, the most significant challenge faced by the students was insufficient computers in the e-library.

Borgohain (2016) carried out a study on the use and awareness of electronic resources by undergraduate students of Dhirubhai Ambani Institute of Information and Communication Technology (DA-IICT), Gandhinagar, Gujarat. The key findings of the study show that majority of users use e-resources once in a week and male students use e-resources more than female students. However, there are constraints accessing e-resources as pointed by the respondents such as lack of user training as well as lack of skilled personnel to help them. Padma, Ramasamy, Chellappandi and Kathiravan (2014) carried out a survey on the awareness and use of electronic resources by the engineering students of engineering colleges in Sivagangai district, Tamilnadu India. Their study identified challenges of the respondents in using electronic resources as lack of facilities, power failure and lack of knowledge on electronic resources. Adeniran (2013) conducted a study on the usage of electronic resources by undergraduates at the Redeemer's University, Nigeria and found that undergraduates use electronic resources for research purposes with 241 (21%) of respondents. Owolabi, Idowu, Okocha and Ogundare (2016), carried out a study on evaluation of utilization of electronic information resources by undergraduates in the faculties of education and the Social Sciences in University of Ibadan. Findings revealed that the internet services, e-mail services, online databases, electronic databases and cybercafés were the available electronic information resources frequently used by the undergraduate students in University of Ibadan, but noted that insufficient power supply, poor network/internet connectivity and limited access to computer terminals are major hindrances to utilization of electronic information resources. Madondo, Sithole and Collence (2017), conducted a study at Africa University, Mutare, Zimbabwe. Their study focused on evaluation of the usage of electronic information resources by undergraduate students in the faculty of Management and Administration at Africa University. Consequently, the study established that there was a low usage of electronic information resources by undergraduate students in the faculty of Management and Administration due to socio and technical challenges and concluded that students lacked adequate hands-on skills required to retrieve information from subscribed electronic information resources hence low usage.

The importance of electronic resources cannot be underestimated. Owolabi, Idowu, Okocha and Ogundare (2016) noted that electronic information resources offer today's students new opportunities not available to previous generations. In this era of globalization where teaching and learning is driven by ICT, electronic resources are invaluable research tools that complement the print-based resources in a traditional library setting (Owolabi, Idowu, Okocha and Ogundare, 2016). Electronic information resources is a catalyst to access to information resources that might be restricted to users due to geographical location, finances and lack of print resources, access to more current information, and provision of extensive links to additional resources or related content (Dadzie, 2005 cited in Owolabi, Idowu, Okocha and Ogundare (2016). Furthermore, Ellis and Oldman (2005) cited in Bankole, Ajiboye and Otunla (2015), posited that the use of electronic resources has availed researchers and students' access to global information resources, particularly the internet for their scholarly intercourse. Electronic information resources have great significance in the advancement of teaching and learning. These resources have gained wide acceptability among university scholars globally due to its convenience, multi-access capability, unrestricted access to information, ability to browse the web and timeliness (Bankole and Ajiboye, 2015). Subsequently, university libraries in their quest to fulfill their role as information reservoir in support of teaching, learning and

research are increasingly acquiring electronic resources for optimum use of their staff and students. Bankole, Ajiboye and Otunla (2015), further noted that undergraduate students and members of the academic community now have access to various forms of electronic information resources that help them to promote academic activities, leading to a greater need for research assistance in Universities to achieve improved access facilities for information retrieval and have access to a vast array of information from where selection could be made.

Methodology

Survey research design was adopted for the study and the instrument used for data collection was a structured questionnaire. The target population of this study comprised of 2,600 undergraduate students who were duly registered at Kabale University library for the 2018/2019 academic session. A total of 475 of the total population was drawn using a random sampling technique. 475 questionnaires were distributed to the respondents and a total of 469 were duly completed and found usable, which gave 99% response rate. The data collected for this study was analyzed using simple percentage and frequency counts.

Data Analysis and Discussion of Findings

Table 1: Distribution of Respondents by Gender

Sex	Frequency	Percentage
Male	260	55.4%
Female	209	44.6%
Total	**469**	**100%**

From Table 1 above, 260 (55.4%) of the respondents were male and 209 (44.6%) of them were female. There are obviously more registered male library users than female in the 2018/2019 academic session.

Table 2: Awareness of e- resources

Types	Frequency	Percentage
E-books	411	88%
E-journals	368	78%
Online Databases	311	66%
Offline Databases	267	57%
CD-ROMS	217	46%
Internet Sources	188	40%
E- zones	142	30%
E- Reference Sources	111	24%
Audio Visual Sources	79	17%

Table 2 shows that 411(88%) of the respondents were aware of e-books, 368 (78%) e-journals, 311(66%) online databases, 267(57%) offline databases, 217(46%) CD-ROMS, 188 (40%) internet sources, 142 (30%) e-zones, 111(24%) e-reference and only 79 (17%) Audio Visual Sources.

Table 3: Purpose for Use of e- resources

Purpose of e- resources usage	Frequency	Percentage
Academic/research purpose (assignments, projects, course works, tests, final exams)	447	95%
Personal self-development	410	87%
Reading ahead of lecturer teachings	378	81%
Current news (local news and international news)	298	64%
Recreational purposes	217	46%
Health related information	189	40%
Broaden knowledge about a topic	111	24%
Advances in recent developments	97	21%

Table 3 indicates that 447 (95%) of the respondents uphold that they use e- resources for academic purpose such as assignments, projects, course works, tests, final exams, etc. followed by 410 (87%) of the respondents who said they use it for personal self- development, 378 (81%) said to study ahead of lecturer teachings, 298 (64%) to get current news both local and international, 217 (46%) for recreational purpose, 189 (40%) for health related information, 111 (24%) to broaden their knowledge and 97 (21%) use it to be acquainted with advances in recent developments. This finding agrees with the study of Padma, Ramasamy, Chellappandi and Kathiravan (2014) which shows that 53 (35.33%) use electronic resources for research/ project work. The finding also agrees with the study of Adeniran (2013) which shows that undergraduate students use electronic resources for research purposes with 241 (21%) of respondents in affirmative.

Table 4: Frequency Usage of e- resources

Frequency of use	Response	Percentage
Daily	145	31%
Weekly	256	55%
Monthly	68	14%
Quarterly	---	--
Bi-annually	---	--
Annually	---	--
Total	469	100%

From Table 4 above,145 (31%) of the respondents use E-resources on daily basis, 256 (55%) use it weekly and only 68(14%) of them indicated that they use it monthly while no one of them uses e- resources quarterly, bi-annually or annually. This means that a vast majority of FUPRE library registered undergraduates uses e-resources on a weekly basis. This finding agrees with the study of Borgohain (2016) which shows that majority of users use e resources once in a week (44.11%).

Table 5: Challenges faced when using e- resources

Challenges	Frequency	Percentage
Lack of adequate training	448	96%
Lack of expert help	391	83%
Slow internet network	321	68%
Too difficult to use	297	63%
Power failure	217	46%
Lack of time	196	42%
Inadequate computers	17	4%

It is glaring from Table 5 that 448 (96%) of the respondents indicated lack of adequate training as their major challenge, 391 (83%) mentioned their challenge as lack of expert help, 321 (68%) of the respondents said slow internet network, 297 (63%) cited that e- resources are too difficult to use, while 217 (46%) of the respondents said power failure, 196 (42%) quoted lack of time and 17 (4%) of the respondents stated inadequate computers as their major challenge to the use of e- resources.

Conclusions

With advances in technology and e-publishing access to information on a local, regional, national and international basis, overcoming the traditional barriers of time and space has become easy. With the availability of more resources through the internet plus high-speed connectivity, the demand for e-resources is increasing. With the growing popularity of e-resources, modern libraries are adding more e-resources into their collection. E–resources therefore play an important role in the teaching and learning profession. From this study it is clear that e-resources have tremendous impact on the undergraduate's students. Students use e- resources mainly for academic/ research purpose specifically to prepare for assignments, projects, course works, final examinations, etc. The study also revealed that majority of the respondents makes use of electronic resources on a weekly basis. However, the major challenge undergraduates' face with the use of electronic resources is lack of adequate training, lack of expert help and slow internet connectivity.

Recommendations

Basing on the findings, the following recommendations were made:

a) Regular training should be conducted for the undergraduate students' library patrons as regards the use of computers, World Wide Web and electronic resources.

b) Academic libraries should provide the facilities for the users to get familiar with e-resources subscribed by the university. This can be done by the presentations organized by the concerned publishers or vendors.

c) Problems related to slow connectivity should be overcome by upgrading the band-width

d) Academic libraries should subscribe to e-resources keeping in mind the priorities and preferences of users.

e) Announcements should be made by the librarians about the availability of new e-resources or additions of new databases for users.

f) Librarians should always be ready to render assistance to the patrons whenever needed as they make use of electronic resources.

g) More computers with the latest specifications and multimedia kits should be installed, so that the users can use internet telephony, video conferencing, chatting and other useful services of the internet.

h) Librarians when marketing their services should also strive to promote users' awareness of the availability of electronic resources in the library.

i) Users should be allowed to copy electronic resources that are beneficial to them as this will reduce the over dependency on print resources thereby increasing their life span.

References

Adeniran, P. (2013). Usage of electronic resources by undergraduates at the Redeemers University, Nigeria. *International Journal of Library and Information Science*, *5*(10), 319-324.

Amina Akporhonor, B. (2005). Library funding in Nigeria: past, present and future. *The Bottom Line*, *18*(2), 63-70.

Bankule, O. M., Ajiboye, B.A. and Otunla, A. (2015), Use of electronic information resourcesby undergraduates of Federal Universities of agriculture, Abeokuta Ogun state Nigeria. *International Journal of Digital Library Services.* Vol.5. No. 4

Baro, E. E., Endouware, B. E. C. and Ubogu, J. O. (2011). Awareness and use of online information resources by medical students at Delta State University in Nigeria. *Library Hi Tech News*, Vol.*28. No.*10; 11-17.

Borgohain, T. (2016). Use and Awareness of Electronic Resources by Undergraduate Students of DhirubhaiAmbani Institute of Information and Communication Technology (DA-IICT), Gandhinagar, Gujarat: a study.

Dadzie, P. S. (2005). Electronic Resources: access and usage at Ashesi University College. Campus – wide Information Systems 22(5). Retrieved on 23 June 2019 from: http//www.emeraldinsight.com.

Daramola, C. F. (2016). Perception and Utilization of Electronic Resources by Undergraduate Students: The Case of the Federal University of Technology Library, Akure. *American Journal of Educational Research, 4*(5); 367-370.

Dhanavandan, S. and Tamizhchelvan, M. (2012). An evaluation of e-resources in academic libraries in Tamil Nadu. *Journal of Emerging Trends in Computing and Information Sciences*, *3*(3), 421-426.

Egberongbe, H. S. (2011). The use and impact of electronic resources at the University of Lagos.

Madondo, T., Sithole, N. and Chisita, C. T. (2017). Use of electronic information resources by undergraduate students in the Faculty of Management and Administration at Africa University, Mutare, Zimbabwe. *Asian Research Journal of Arts and Social Sciences*, 1-12.

Olajide, A. A. and Otunla, A. O. (2015). Use of Information Resources by Student Nurses. *Library Philosophy and Practice*, 0_1.

Omeluzor, Saturday, U. and Ogo, P. (2018). Role of Nigerian libraries for sustainable education system, information literacy and national development. *Annals of Library and Information Studies*, Vol.65, No.2; 122-127.

Owolabi, S., Idowu, A. O., Okocha, F. and Ogundare, A. O. (2016). Utilization of electronic information resources by undergraduate students of University of Ibadan: a case study of social sciences and education. *Journal of Education and Practice.* Vol. 7 No. 3.

Padma, P., Ramasamy, K., Chellappandi, P. and Kathiravan., M. (2014). Awareness and use of electronic resources by the engineering students: a case study of two engineering colleges in Sivagangai district, Tamilnadu India. *E-Library Science Research Journal,* Vol.2 (10); 1-11.

Staffordshire University (2014). E-Resources. Retrieved on 15 July 2019 from: http://www.staffs.ac.uk/support_depts/infoservices/library/eresources/

TechTarget. (2016). Definition: Digital Library. Retrieved on 5 June 2019 from http://whatis.techtarget.com/definition/digital-library