



ELECTRONIC RESOURCES UTILIZATION BY UNDERGRADUATE STUDENTS OF THE DEPARTMENT OF LIBRARY AND INFORMATION SCIENCE MICHAEL OKPARA UNIVERSITY OF AGRICULTURE UMUDIKE

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Abstract

This study investigated electronic resources utilization by the undergraduate students of the Department of Library and Information Science in Michael Okpara University of Agriculture, Umudike. Descriptive research design was adopted for the study with a population of 223. Considering the number as manageable, the researchers used the entire population through simple random sampling. The instrument used in collecting data was the closed-ended questionnaire designed in line with the four-point rating scale model. Meanwhile, out of the 223 copies of the questionnaire distributed, 185 copies representing 82.96% were successfully completed and returned for use in the analyses. Frequency Percentages, Mean score and standard deviation were used in analysing data represented in a table using the Statistical Package for Social Sciences (SPSS). The findings revealed that electronic resources available for utilization by the undergraduate students include: OARE, TEEAL, HINARI, AGORA in CD-ROMs, but the level of frequency of utilization of these resources by the students varies. Moreover, the study revealed the problems militating against electronic resources utilization to include: lack of and/or poor level of awareness and access to the electronic resources; lack of commitment of government to provide ICT policy in libraries to regulate the provision of new technologies, including electronic resources; high cost of using electronic resources for providing information due to high costs of hardware and software equipment, insensitive attitude by staff of the library etc. Based on the identified problems, the following recommendations were made: increasing awareness and accessibility to electronic resources to enhance utilization; improved commitment on the part of government to formulate implementable ICT policies to aid information providers in the provision of highly regulated and reliable services; provision of free Internet services, improve high speed bandwidth to encourage the utilization of electronic resources by the students of the University.

Keywords: Electronic resources, utilization, library and information science, students

Introduction

Electronic resources, commonly referred to as e-resources are becoming an integral part of library resources or collection at academic institutions, and are been utilized by students, faculty members and other researchers for their various information needs. Advancement in information and communication technology

(ICT) during the past few-decades have brought radical change in the way information is gathered, stored, organized, accessed, retrieved and utilized. The application of computer in information processing has brought several products and services to the scene. The Internet and the World Wide Web (www) are constantly influencing the development of new modes of scholarly communication; their potentials for delivering goods are quite vast, as they overcome successfully the geographical limitations associated with the print media.

Libraries have witnessed a great metamorphosis in recent years both in their collection development and in their service structure. Over the last several years, a significant transformation has been noticed in collection development policies and practices. Print medium is increasingly giving way to the electronic form of materials (Narayanapoornima & Goudar, 2005). The distribution time between product publication and its delivery has been drastically reduced.

Rosenbery (2005) opined that the changing academic environment and the recognition of the role of electronic resources in libraries have brought about transformation which includes an investment in electronic infrastructure and connectivity and electronic learning, which calls new approaches in providing library services to enhance the quality of higher education. The availability of electronic resources in libraries are enhancing qualitative and quantitative academic research in tertiary institutions. According to Igwe and Uzuegbu (2013) electronic resources, also known as electronic information resources, are information materials that requires computers or associated technologies to access whether through personal computer, mainframe, or mobile devices and are accessed by the use of the internet or local area networks.

According to the Anglo American Cataloguing Rules 2(AACR2) electronic resources are data and/or programme encrypted for use through computerized devices. This is to say that the use of peripherals that are directly connected to the computerized devices is indispensable to access electronic resources. However, electronic resources are invaluable tools for study; learning and research (Swain, 2010).

Electronic sources of information have brought significant changes to the services and operations of modern libraries as the use has increased rapid transmission of data and information across computer networks (Ani, Ngulube & Onyancha, 2015). One of the factors of measuring academic success is research productivity which requires information utilization and ICT information has played a great role in increasing demand for library information utilization. Therefore, they go for electronic resources because the availability and use of electronic resources facilitates increased and easy processing, access and retrieval of information. Meanwhile, despite the benefits of electronic resources in teaching, learning and research, several impediments seem to militate against these revolutionary library resources.

Accessing information has challenges that have made the process frustrating to users and therefore hindering the library from achieving its goal of disseminating information. Exposure to electronic databases, up-to-date books and state of the art facilities engender in the user the confidence and assurance that the library is a place

to constantly visit. It is based on that this study was embarked upon so as to appreciate the state of utilization of electronic resources by the undergraduate students of Library and Information Science in Michael Okpara University of Agriculture, Umudike, in order to ascertain the factors affecting the utilization of electronic resources and to possibly recommend measures for enhancing utilization of e-resources in the institution.

1.4 Purpose of the Study

The broad purpose of this study was to examine electronic resources utilization by undergraduate students of Library and Information Science, Michael Okpara University of Agriculture, Umudike. In order to achieve this broad purpose, the specific objectives were considered to:-

- i. Identify electronic resources available in Michael Okpara University of Agriculture, Umudike.
- ii. Ascertain the frequency of utilization of electronic resources by undergraduate students of LIS, MOUAU.
- iii. Determine the extent of utilization of electronic resources by undergraduate students of LIS in MOUAU library.
- iv. Identify challenges affecting the utilization of electronic resources by undergraduate students of Library and Information Science.
- v. Determine ways of improving the utilization of electronic resources by undergraduate students of Library and Information Science.

1.5 Research Questions

The following research questions were adduced for the study:-

- i. What are the electronic resources available for undergraduate students of Library and Information Science?
- ii. What is the frequency of utilization of electronic resources by undergraduate students of Library and Information Science in MOUAU?
- iii. What is the extent of utilization of electronic resources by undergraduate students of LIS in MOUAU?
- iv. What are the challenges affecting the utilization of electronic resources by undergraduate students of Library and Information Science?
- v. What are the ways of improving the utilization of electronic resources by undergraduate students of Library and Information Science?

Review of Related Literature

Electronic Resources

Electronic resources are often referred as online resources that are available on the internet in different subjects and topics. These resources require computer access before they can be read or used. Mufutau, Afolake and Adamir (2015) affirm that electronic resources are systems in which information is stored electronically and made accessible through electronic systems and computer networks. In fact, the emergence of electronic resources has tremendously transformed information handling, management, dissemination, access, retrieval and utilization in academic

environments, especially in university libraries (Urhiewhu & Sarah, 2014). Electronic resources include; online databases such as AGORA, TEEAL, HINARI, MEDLINE, OARE, EBSCOHOST, LANTEEL, ERIC, LEXIS, ECONLIT, CD-ROMs, OPAC, e-journals, e-books, e-conference papers, e-dissertations/theses, e-zines, etc., (Uzuegbu, Chukwu & Ibegwam, 2012). Electronic resources possess such attribute as; multiple access, speed, richer in content, reuse, timeliness, and economical. Through the use of electronic resources, researchers and other information users, including students now have access to global information resources, particularly the internet for their scholarly works.

Electronic resources provide a wider range and organized access to high quality information and this has brought about innovations in teaching, learning and research at all levels of education i.e. from undergraduate through postgraduate and it holds many advantages.

Despite several advantages of electronic resources utilization, there are also several challenges militating against its use among the undergraduate students of the Department of Library and Information Science. According to Chisenga (2004); Egberongbe (2011); and Akporhonor and Akpojotor (2016), some of the factors that affects the use of electronic resources in Nigerian higher institutions include, but not limited to: lack of strategic planning, lack ICT policy in most libraries, inadequate funding, lack of use of internet to provide information services to users, high cost of using electronic resources for providing information, infrastructural deficit, and lack of consistent training for users in new ICT services. Corroborating the above standpoint, Nwachukwu and Asom (2015) avers that electronic resources utilization are greatly hampered by inadequate funds, inadequate power supply, lack of awareness of available e-resources, poor ICT skill and know-how, lack government sponsorship, time constraint, irregular organization of IT programmes, inadequate Internet cafes, etc. Damilola (2013) also noted insufficient skills, financial problems, lack of access to the e-resources and excessive academic workload as the problems militating against the use of electronic resources in the libraries.

The fact that there are several problems confronting and threatening electronic resources utilization by undergraduate students does not mean that solutions have eluded. Akidi, Okogwu and Uzoagba (2017)) assert that academic libraries employ e-resources and services to satisfy the diverse information needs of users. The utilization of such information resources, which no doubt include; e-journals, CD-ROMs, online databases, e-books, web-based resources, and variety of other electronic media, can be enhanced through many ways. Yusuf and Iwu (2010) observes that libraries without electronic resources, including Internet access may lose their relevance in the academic environment as most students, lecturers, and researchers are aware of what the Internet provides, thereby resorting to in a very large extent, to cybercafés to satisfying their information needs.

Therefore, handling the problems militating against the electronic resources utilization, efforts must be put in place.

Methodology.

This study adopted the descriptive survey research method. The descriptive

research design was used in the study in an effort to achieve relative objectivity and accuracy in defining the opinions, feelings, beliefs, ideas and attitudes of several individuals used in the study. The population of the study was 223 which comprised the 200, 300 and 400 levels students of Library and Information Science in MOUAU. The researchers did not use sample as the entire population was considered manageable. The researchers used closed ended questionnaire of 59 items divided into two sections; the first part was on demographic information while the second part was structured based on the research question. The questionnaire was distributed and collected by the researchers themselves. A total of 185 (83%) out of 223 questionnaire was returned and found usable for the study. The data collected was analysed with percentages, cumulative mean frequency and standard deviation represented in the tables.

Results and Discussion

The presentation and analysis are basically the results of the data collected from the respondents.

Table 1: Questionnaire Distribution and Returned

STUDENTS' LEVEL	QD	Percentage of QD	QR	Percentage of QR	QNR	Percentage of QNR
2014/2015-400 Level	100	44.84%	87	39.01%	13	5.83%
2015/2016-300 Level	50	22.42%	40	17.94%	10	4.48%
2016/2017-200 Level	73	32.74%	58	26.01%	15	6.73%
TOTAL	223	100%	185	82.96%	38	17.04%

The table revealed that out of the 223 copies of the questionnaire distributed, 185 copies were completed and returned to the researcher with useful information. Consequently, this analysis is based on 185 copies of the instrument that were successfully completed and returned to researchers. This number of instrument represents 82.96% response rate, and this formed the fulcrum within which this researchers rely.

Table 2: Available Electronic Resources for Utilization

S/N	Items	A	%	NA	%	Total Respondents
1.	Online databases (OARE, TEEAL, HINARI, AGORA, etc.)	87	47%	98	53%	185
2.	CD-ROMs	95	51.4%	90	48.6%	185
3.	Online Public Access Catalogues (OPAC)	-	0%	185	100%	185
4.	E-books	71	38.4%	114	61.6%	185
5.	E-journals	76	41.1%	109	58.9%	185
6.	E-newspapers/e-magazines	86	46.5%	99	53.5%	185
7.	E-theses/dissertations	83	44.9%	102	55.1%	185
8.	E-conference proceedings	84	45.4%	101	54.6%	185
9.	Internet resources	154	83.2%	31	16.8%	185

Table 2 above presents the results of the available electronic resources for utilization by undergraduate students of Library and Information Science in the Michael Okpara University of Agriculture, Umudike. This result shows that out of the nine (9) items captured in the questionnaire, 8 items were accepted (A) as the e-resources available for utilization by the students, while OPAC was rejected (R).

From this presentation, it can be observed that the items accepted to be available are greater than the ones not available. Hence, these e-resources are available for utilization by undergraduate students of Library and Information Science in Michael Okpara University of Agriculture, Umudike.

Table 3: Frequency of Utilization of Electronic Resources by Undergraduate Students of Department of Library and Information Science (n=185)

S/N	Items	Daily	Monthly	Rarely	Never	No. of Respd.	M	SD	Decision
1.	Online databases (OARE, TEEAL, HINARI, AGORA, etc.)	47	86	45	7	185	2.94	0.805	A
2.	CD-ROMs	43	72	57	13	185	2.78	0.883	A
3.	Online Public Access Catalogues (OPAC)	25	68	66	26	185	2.50	0.898	A
4.	E-books	59	102	24	-	185	3.19	0.523	A
5.	E-journals	94	89	2	-	185	3.50	0.523	A
6.	E-newspapers/e-magazines	74	110	1	-	185	3.39	0.501	A
7.	E-theses/dissertations	92	89	3	1	185	3.49	0.526	A
8.	E-conference proceedings	66	105	14	-	185	3.28	0.596	A
9.	Internet resources	91	87	2	5	185	3.43	0.656	A
	GRAND MEAN						3.18		A

Decision Criterion = 2.50

Table 3 above, presents the results of the frequency of electronic resources utilization by the undergraduate students of the Department of Library and Information Science in Michael Okpara University of Agriculture, Umudike. This result is in line with the available e-resources that the students are aware. Hence, the analysis of the frequency of utilization of the e-resources revealed as shown: online databases (OARE, TEEAL, HINARI, AGORA, etc.) (2.90); CD-ROMs (2.78); OPAC(2.50); e-books(3.19); e-journals(3.50); e-newspapers/e-magazines(3.39); e-theses/e-dissertations(3.47); e-conference proceedings(3.28); and internet resources(3.43). From this result, some e-resources have high frequency of utilization than others.

Table 4: What is the extent of utilization of electronic resources by undergraduate students of LIS in MOUAU?

S/N	Extent of Utilization of Electronic Resources	VHE	%	HE	%	LE	%	VLE	%
1	Online databases (OARE, TEEAL, HINARI, AGORA, etc.)	22	11.9%	78	42.2%	32	17.3%	53	28.6%
2	CD-ROMs	11	6%	25	13.5%	84	45.4%	65	35.1%
3	Online Public Access Catalogues (OPAC)	1	0.6%	3	1.6%	15	8.1%	166	89.7%
4	E-books	17	9.2%	18	9.7%	78	42.2%	72	38.9%
5	E-journals	27	14.6%	35	18.9%	86	46.5%	37	20.0%
6	E-newspapers/e-magazines	56	30.2%	42	22.7%	66	35.7%	21	11.4%
7	E-theses/dissertations	33	17.8%	24	13.0%	81	43.8%	47	25.4%
8	E-conference proceedings	65	35.1%	42	22.7%	40	21.6%	38	20.6%
9	Internet Resources	62	33.5%	74	40%	36	19.5%	13	7.0%

Findings in table 4, reveals less utilization of OPAC and CD-ROMs by Library and Information Science students. From the table majority of the students indicated a very low extent of 89.7% for the use of OPAC and 45.4% of low extent for the use of CD-ROMs respectively. However, the table shows that the students make most use of internet resources.

Table 5: Challenges Affecting the Utilization of Electronic Resources by Undergraduate Students of the Department of Library and Information Science (n=185)

S/N	Items	SA	A	D	SD	Total Respondents	M	SD	Decision
1.	Poor level of awareness and access to the electronic resources	84	97	4	-	185	3.43	0.539	A
2.	Lack of commitment of governments to provide ICT policy in libraries to regulate the provision of new technologies, including electronic resources	80	97	8	-	185	3.39	0.571	A
3.	High cost of hardware and software equipment	89	85	11	-	185	3.42	0.604	A

S/N	Items	SA	A	D	SD	Total Respondents	M	SD	Decision
4.	Inadequate funding of libraries to acquire and process e-resources	88	85	12	-	185	3.41	0.611	A
5.	Lack of internet facilities, including terminals to aid the provision of electronic resources and services to users.	79	98	8	-	185	3.38	0.570	A
6.	Lack of stable power supply to facilitate the utilization of electronic resources	91	83	7	4	185	3.41	0.671	A
7.	Lack of training for users in the use of new ICT services, including electronic resources	91	87	6	-	185	3.46	0.562	A
8	Inadequate trained staff in libraries to manage electronic resources provided for users	80	99	6	-	185	3.40	0.554	A
9	Lack of information retrieval skills for exploiting electronic resources	96	84	5	-	185	3.49	0.553	A
	GRAND MEAN						3.42		A

Source: Field Survey, 2020 Decision Criterion= 2.5

The above representation on the table shows the results of the challenges affecting the utilization of electronic resources by undergraduate students of Library and Information Science in Michael Okpara University of Agriculture, Umudike. The analysis unfolds nine (9) key issues militating against electronic resources utilization by the undergraduate students and which were all accepted by the respondents with a grand mean of 3.42.

Solutions to Overcoming the Challenging Affecting the Utilization of Electronic Resources by Undergraduate Students of the Department of Library and Information Science (n=185)

S/N	Items	SA	A	D	SD	Total Respondents	M	SD	Decision
1.	Increasing awareness and accessibility to electronic resources to enhance utilization	100	80	2	3	185	3.50	0.609	A
2.	Serious commitment on the part of governments to develop and/or	94	90	1	-	185	3.50	0.512	A

S/N	Items	SA	A	D	SD	Total Respondents	M	SD	Decision
	formulate implementable ICT policies to aid information providers provides highly regulated and reliable services								
3.	Provision of free and/or reduced cost of Internet services, including high speed bandwidth to encourage the utilization of electronic resources	83	90	12	-	185	3.38	0.607	A
4.	Provision of adequate funding of libraries in order to enable them provides requisite facilities to boost electronic resources utilization.	90	92	3	-	185	3.47	0.532	A
5.	Provision of internet facilities, including terminals to aid the provision of electronic resources and services to users.	87	91	7	-	185	3.43	0.568	A
6	Provision of adequately trained staff in libraries to manage electronic resources provided for library users	78	95	12	-	185	3.36	0.601	
7	Training of users in skill for the use of ICT facilities for effective use of electronic resources and services	74	100	11	-	185	3.34	0.588	A
8	Stable and reliable power supply through provision of generating set.	94	83	8	-	185	3.46	0.581	A
	GRAND MEAN						3.43		A

Decision Criterion = 2.5

In this analysis, eight (8) solutions with their respective mean scores are accepted by the respondents with a grand mean of 3.43 which is greater than the decision criterion of 2.50. From this presentation above, the analysed solutions to electronic resources utilization by undergraduate students were cardinal in enhancing electronic resources utilization.

Discussion of Findings

These findings relate specifically and sequentially with the specific objectives and corresponding research questions which regulates this research study. They are based on the data presentation and analyses as follows:

The finding analyses the available electronic resources for utilization by undergraduate students of the Department of Library and Information Science and the result revealed that electronic resources available for use by the students includes; online databases (e.g. OARE, TEEAL, HINARI, AGORA, etc.); CD- ROMs; e-books; e-journal; e-newspapers/e-magazines; e-theses/e-dissertations; e-conference proceedings; and internet resources. Meanwhile, contrary to the acceptable electronic resources, Online Public Access Catalogue (OPAC), although a known form of electronic resource, was rejected by the respondents. This is in line with the studies and assertions by Mulla and Chandrashekera (2005); Mufutau, Afolake and Adamire (2015); Urhiewhu and Sarah (2014); and Uzuegbu, Chukwu and Ibegwam (2012) Nongo, (2020) who noted the following online databases such as AGORA, TEEAL, HINARI, MEDLINE, OARE, EBSCOHOST, LANTEEL, ERIC, LEXIS, ECONLIT, CD-ROMs, OPAC, e-journals, e-books, e-conference papers, e-dissertations/theses as veritable tools for research by students.

For the frequency of electronic resources utilization by undergraduate students of the Department of Library and Information Science, the study revealed that e-books, e-journals, e-newspapers/e-magazines, e-theses/e-dissertations, e-conference proceedings, internet resources are the most frequently used electronic resources, while online databases (OARE, TEEAL, HINARI, AGORA, etc.), CD-ROMs, and OPAC are the least used by the undergraduate students. This finding collaborates with earlier studies by Mulla and Chandrashekera (2005); and Uzuegbu, Chukwu and Ibegwam (2012) who observed that the frequency of use of electronic resources are basically dependent on the needs, skills and availability of e-resources and applicable hardware and software facilities.

This finding conspicuously revealed that, many challenges inhibits electronic resources utilization by undergraduate students and the challenges as analysed include: poor level of awareness and access to the electronic resources; lack of commitment by governments to the provision of ICT policy in libraries to regulate the provision of new technologies; high cost of using electronic resources for providing information and others. This finding corroborates the assertions of Chisenga (2012); Kebede (2012); Ajuwon et al (2013); and Ojo and Akande (2015) who pinpointed that electronic resources utilization are constrained by lack of information retrieval skills for exploiting electronic information resources, lack of strategic planning; inadequate funding; inadequate use of Internet to provide information services to users and inadequate training for users of new ICT services, lack of computer skills by most students, poor use of the databases, lack of awareness of available electronic resources, lack of access to computers, insufficient training on the use of electronic resources, high cost of provision electronic resources and services and poor power supply.

As it pertains to the solutions of overcoming the challenges affecting electronic resources utilization by undergraduate students, the findings shows the actions

needed to enhance the utilization of electronic resources to include: increasing awareness and accessibility to electronic resources to enhance utilization; serious commitment on the part of governments to develop and/or formulate implementable ICT policies to aid information providers provides highly regulated and reliable services; provision of free and/or reduced cost of Internet services, including high speed bandwidth to encourage the utilization of electronic resources; provision of adequate funding of libraries; provision of internet facilities; provision of adequately trained staff in libraries to manage electronic resources for use by library users; provision of training for users in the use of new ICT resources and services (electronic resources), including search and retrieval skills; and provision of stable and reliable power supply, including provision of stand-by power generating plant. This finding solidified the earlier suggestions in the studies undertaken by Yusuf and Iwu (2010); Islam (2010); Adigun (2015); Akidi, Okogwu and Uzoagba (2017); and Asom and Suleiman (2017)

Conclusion

There are various electronic resources available for utilization in the university libraries for students and they include: online databases (e.g. OARE, TEEAL, HINARI, AGORA, etc.); CD-ROMs, Online Public Access Catalogue (OPAC); e-books; e-journal; e-newspapers/e-magazines; e-theses/e-dissertations; e-conference proceedings; and internet resources. The frequency of utilization of these resources by the students is determined by the information needs of these students and awareness to the information resources provided for them.

Therefore, to enhance electronic resources utilization by the undergraduate students and other electronic information resource users, the following actions must be carried out: increasing awareness and accessibility to electronic resources to enhance utilization; serious commitment on the part of governments to develop and/or formulate implementable ICT policies to aid in the provision of highly regulated and reliable services by information providers.

Recommendations

Based on the findings of this study, the following are the recommendations paramount:-

- i. Libraries should increase awareness and accessibility to electronic resources as this will enhance utilization by undergraduate students and other information users;
- ii. Government, in collaboration with other stakeholders in the information and communication technology (ICT) sector should show serious commitment through the development and/or formulation of implementable ICT policies to aid in the provision of highly regulated and reliable electronic resources and services.
- iii. Governments should ensure the provision of adequate financing of libraries to enable them provide facilities that will boost electronic resources utilization.
- iv. Libraries and their management should to provide stable and reliable power supply such as stand-by power generating plant.

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