

# **Determinants of Utilization of Electronic Information Resources (EIRS) by Undergraduate Students' in Michael Okpara University of Agriculture, Umudike (MOUAAU) Library**

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## **Abstract**

*This research examined the determinants of utilization of electronic information resources (EIRS) by undergraduate students in Michael Okpara University of Agriculture, Umudike (MOUAAU) Library. The research was guided by four research objectives. It took a look at the available EIRS in the library under study as well as the determinants that enhance utilization of EIRS in the library. It further looked at how these factors enhance utilization of EIRS and the impacts of EIRS in the academic performances of the students. The research design was descriptive survey with a population of 195 which consisted of undergraduate students who visited and used the library within the period of this research. A complete census was used for the study because the population was manageable and as such, there was no need for sampling. Furthermore, an observation checklist and a questionnaire were used as instruments for data collection. Data was analysed using frequency counts, percentages, mean scores and standard deviation. The findings from the study showed that a few EIRS are available in the MOUAAU Library. Furthermore, provision of adequate and functional computers and computer accessories and improved and better funding for the library were some of the factors that determine the utilization of EIRS by undergraduate as revealed by the study. Promotion and introduction of variety to the information resources available for use by students and ensuring a more proactive information search and retrieval were*

*also revealed among others, as how the factors enhance its utilization. Consequently, the impacts of EIRs on the academic performances of the students were also shown by the study. Recommendations were also given in the area of better funding of the library, procurement of other relevant EIRs, ensuring that the factors that determine its utilization are put in place, amongst others.*

**Keywords:** *Information Resources, Electronic Information Resources, Utilization.*

## **Introduction**

Libraries, particularly academic libraries are established with the major aim of providing the necessary facilities for teaching, learning and fostering the research needs of users in the various institutions in which they are found and thus, represent. Sequel to this, its users' which is made up of undergraduates, postgraduates, staff and researchers continually visit the library in search of information pertaining to their area of needs. As such, this have propelled the library to continue to seek for new and better ways, even as it battles with poor funding which is as a result of decreasing library budget, of providing efficient and effective information resources and services to its diverse user groups, particularly undergraduate students.

Consequently, undergraduate students form the bulk of users of academic libraries and are in constant search for information, most importantly as starters in the professional field, to help build their academic prowess. As put forth by Quadri, Adetimirin and Idowu (2014) these undergraduates are expected to read further after class instructions, so as to collect relevant information for class assignments, seminars, term papers and projects. Hence, it beckons on the library as the hub of information resource provision to create better alternative ways to help meet the diverse needs of this dynamic user group. In line with this, it is no news that provisions of Electronic Information Resources (EIRs) by academic libraries have become one viable avenue through which the needs of the library users can be met. Furthermore, with the recent advances in provision and utilization of EIRs, the activities of the library are tremendously revolutionized, so also, the way and manner in which the library carry out its operations. In addition, Ahiauzu (2008) posited that through the use of ICT's by library patrons, EIR's have provided a wider access to information in universities for teaching, learning and research than the traditional print medium.

In an effort to sufficiently provide a working definition for Electronic Information Resources (EIRs), Johnson, et al. (2012) stated that they are electronic representation of information which can be accessed via electronic system and computer network. Expounding further, Aderibidge and Ajiboye (2013) quoted that “EIRs are information that is stored in a computer-readable format and that can be retrieved through computer related systems and other related technologies”. To this end, electronic information resources refer to those materials that require computer access, whether through a personal computer, mainframe, or smart technologies.

Furthermore, being the hub of electronic information resources, Information and Communication Technology (ICT) has facilitated the utilization of EIRs in academic libraries. Its emergence has brought about much development in electronic databases, paving way for the development of electronic information resources in libraries, thus providing new avenues to the formats and mode of access to information resources and services. This has further made a profound impact on the library in making available as well as creating access to electronic information resources and this has further aided the library in utilizing the best techniques in providing quick, relevant and comprehensive information resources. Buttressing on the above analogy, Ansari and Zuberi (2010) stated that EIRs are easily accessible in the remote areas and solve storage problems while also controlling the flow of information. Notwithstanding its huge benefits, findings gathered through preliminary observation by the researchers on a selected number of academic libraries in Nigeria, especially the Michael Okpara University of Agriculture, Umudike (MOUUAU) Library, have shown that electronic information resources are still very much under-utilized by undergraduate students. However, the fact remains that for the library to effectively and efficiently fulfil its aim of diligently providing for the diverse needs of its users’, with particular reference to undergraduate students through the use of EIRs, a lot has to be put in place in order to endear use. Hence, this study has been set out to expose and suggest the necessary determinants of utilization of electronic information resources by undergraduate students of Michael Okpara University of Agriculture, Umudike (MOUUAU).

### **Objectives of the Study**

The broad aim of this study is to examine the determinants of utilization of Electronic Information Resources (EIRs) by undergraduate

students of Michael Okpara University of Agriculture, Umudike (MOUAU) Library. The specific objectives are to:

1. find out the available EIRs in the MOUAU Library;
2. identify factors that determine the utilization of EIRs by undergraduate students in MOUAU Library;
3. ascertain the extent to which the determinants of EIRs enhance its utilization by undergraduate students in MOUAU Library; and
4. examine the impacts of utilization of EIRs on academic performance of undergraduate students in MOUAU.

### **Review of Related Literature**

In trying to create a more proactive approach to information service delivery, libraries and library managements have been motivated quickly to adopt the emerging trend of Electronic Information Resources (EIRs). As cited by Dolo-Ndlwana (2013), electronic access in libraries dates as far back as the mid-1960s with the introduction of Machine Readable Catalogue (MARC) which was followed by the Online Public Access Catalogues (OPACs). However, in the late 1960s, bibliographic databases were developed. MEDLARS were the first on-demand computer based information retrieval service, and it was developed primarily for use by the Medical profession. In 1971, MEDLINE, the online version of MEDLARS was developed and it was the first major online dial-up database search service. The following year, DIALOG offered the first public online commercial database. With these first databases, there were no real acquisition decisions, as they were offered as access services to which libraries could subscribe. Actual searching of these databases produced charges that many libraries passed along to users. While the information revolution was clearly underway, it was not until after the introduction of CD-ROM in the mid-1980s that those electronic resources began to have major impact on selection practices in libraries (Mwirigi, 2013). Soon after the introduction of the CD-ROM in the 1980s, came the introduction of other databases and later the introduction of web-based (internet) databases towards the turn of the 21st century, which also saw the introduction of electronic serials and electronic books. In 1990, as posited by Nisonger in Chukwueke (2016) e-resources such as e-journals, e-books and full-text databases emerged as important sources of information as these e-resources allow users who have internet access to search and retrieve information from anywhere and at anytime.

Today, one can gainfully say that electronic information resources are now taking centre stage and as a result have broken the barriers associated with print information resources. Igbo and Imo (2013) posited that the realities of the present information age as a result of the evolution of Information and Communication Technology (ICT) has brought about radical changes in teaching, learning and research. Stating further, they asserted that this has invariably resulted in an overwhelming transformation in information based services, so much so that the role of the traditional library has been redefined to key into the opportunities provided by technology to reshape information provision in line with the expectations of the new information society.

Interestingly, it is important to point out here that the concept of Electronic Information Resources is a relative one. While some look at it as digital or online resources, others see it as audio-visual resources, and so on. Howbeit, Chukwueke (2016) stated that they could be categorized into online, offline and near-line/local host resources. However being perceived, it is pertinent to note that electronic information resources will forever change the way and manner in which information is provided, packaged and served. Proffering a suitable definition for electronic information resources have taken different turns. Mittal and Bala (2013) recorded that EIRs are those materials that require computer access, whether through personal computer, mainframe or handheld mobile device. Positing further, Swain and Panda (2009) perceives that they are resources explored through modern ICT devices, refined and redefined and more often stored in cyber-space in the most concrete and compact form which can be accessed simultaneously from infinite points by a great number of audience. Still on EIRs, Haridasan and Khan (2009) indicated that EIRs are those information resources in which information is stored electronically and are accessed through electronic systems and networks.

Nonetheless, in order for the library to effectively and efficiently achieve its objective of service delivery, information resources amongst other things must be readily available both in print and most importantly, electronic formats as the library in recent time is charged with the responsibility of better providing for the dynamic needs of its ever-increasing users. Adeleke and Nwalo (2017) opines that availability of electronic information resources such as CD-ROM technology enables libraries to provide instant, easy and convenient access to a substantial amount of relatively current and retrospective information at a fixed or predictable cost. Among the EIRs acquired by libraries includes; electronic journals (E-Journals), electronic books (E-Books), electronic



newsletters (E-Newsletters), electronic projects (E-Projects), electronic magazines (E-Magazines), etc., which ordinarily are referred to as local host or near-line electronic information resources; the online electronic information resources which comes in the form of Access to Global Online Research in Agriculture (AGORA), Health Inter-Network Access to Research Initiatives (HINARI), Online Access to Research Environment (OARE), Online Public Access Catalogue (OPAC), Internet Resources; the CD-ROM databases which culminates the software applications as well as softcopy of subjects of particular disciplines and finally; Offline electronic information resources such as; The Essential Electronic Agricultural Library (TEEAL). Additionally, this betters the study carried out by Quadri, Adetimirin and Idowu (2014) on the availability and utilization of electronic information resources by undergraduate students in private universities in Ogun State, Nigeria. The findings showed that internet was readily available at Babcock (83.5%) and Redeemer (92.8%), while other resources were not readily available. However, a good number of the respondents in Babcock (64.0%) and Redeemer (89.1%) used the electronic resources for assignments and research works.

Having stated the above, it should be noted here that availability does not always guarantee use. An information resource may be available in the library but if the necessary factors that will facilitate its use are not in place, then use becomes problematic. The analogy above would then hinge on the study by Urhiewhu and Omah (2016) on the Level of Electronic Information Resources Usage among Undergraduate Students in Taraba State University Library, Jalingo, Taraba State. The survey revealed that electronic information resources were relatively available but however, it was largely under-utilized. A clear revelation showed that majority of the respondents indicated power outage, delayed downloads, high cost of access, was lack of search skills and need to filter the search result factors affecting the use of EIRs.. Furthermore, Miyanda (2011) in a survey of 127 respondents randomly selected to answer questionnaires and another 22 respondent selected to take part in FDGs, revealed that the level of usage of EIRs were low with forty percent (40%) of the respondents indicating that they use it while sixty percent (60%) revealed that they do not use them. Among militating factors responsible for low usage as recorded were lack of encouragement and proper guidance from lecturers and librarians to students to effectively exploit EIRs, fewer computers made available for the students to use, poor internet connectivity as well as internet corruption, power failure and insufficient bandwidth and lack of

awareness of available EIRs. Building on the above, Nwabueze and Urhiewhu (2015) by implication suggests that intermittent power supply, availability of relevant databases, adequate bandwidth, adequate computers and network infrastructures, regular ICT training and as a point of note, awareness creation are some of the factors that enhances utilization of EIRs.

Consequently, the emergence of electronic information resources (EIRs) has cut off the barrier to valuable information resources which until now were difficult to access especially by scholars in developing nations of the world (Omosekejimi, Eghoro&Ogo, 2015). The ability to provide multi-user access to the same information, at the same time and from wherever, gives EIRs supremacy over its print counterpart. Salaam (2008) attributes the increasing popularity of EIRs to its flexibility in searching than the paper-based or print resources. Subsequently, Tenopir as cited in Omosekejimi, Eghoro and Ogo (2015) in analyzing the findings of a major survey of over 200 studies carried out on the use of EIRs in libraries between the year 1995 and 2003, discovered that electronic information resources have been rapidly adopted into the academic spheres, however behaviour varies according to discipline. A careful review of the study conducted by Okello-Obura and Magara (2008) on Electronic Resource Access and Utilization at Makerere University, Uganda showed that users derive a lot of benefit from the use of EIRs such as gaining access to wider range of current information which helps improve the level of academic performance.

## **Methodology**

The descriptive survey design was adopted for this study with a population of one hundred and ninety-five (195) respondents. This consisted of the undergraduate students in 200 level and above who visited and used the library under study within the period of this research. There was no need for sampling as the size of population was manageable, thus, a complete census was used. The study made use of an observation checklist to ascertain the available EIRs in the library and a four-point scale questionnaire titled “Determinants of Utilization of Electronic Information Resources by Undergraduate Students Questionnaire (DUEIRUSQ)” as instruments for data collection. A total of one hundred and ninety-five copies (195) copies of the validated questionnaire were administered by the researcher to the respondents within the library premises out of which one hundred and fifty-six (156) were correctly filled and returned. Furthermore, data collected were analyzed using frequency counts, percentages, mean scores and

standard deviations. However, mean scores of 2.5 and above were accepted and below 2.5 were rejected. The results were presented in tables.

## Presentation and Discussion of Findings/Results

**Table 1:** Distribution and Return Rate of the Questionnaire.

<i>No. of Copies Distributed</i>	<i>%Rate of Questionnaire Distributed</i>	<i>No. of Copies Returned</i>	<i>% Rate of Questionnaire Returned</i>	<i>No. of Copies not Returned</i>	<i>% Rate of Questionnaire not Returned</i>
195	100	156	80	39	20

Table 1 above shows the distribution and return rate of the questionnaire. From the table, it could be seen that out of the 195 copies of questionnaire that were distributed, 156 (80%) copies of the questionnaire were duly completed and returned with vital facts. On the contrary, a total of 39 (20%) copies of the questionnaire were not returned. Hence, the analysis was conducted based on the total realizable number of 156 (80%) copies of the questionnaire that were returned.

**Table 2:** Demographic Variables of the Respondents

	<b>Gender</b>	<b>Frequency</b>	<b>% Rate</b>
1.	Males	69	44.2
2.	Females	87	55.8
	<b>Total</b>	<b>156</b>	<b>100</b>
	<b>College</b>		
1.	College of Agricultural Economics and Rural Sociology Extension (CAERSE)	53	34



	<b>Gender</b>	<b>Frequency</b>	<b>% Rate</b>
2.	College of Aquatic and Food Science Technology ( <b>CAFST</b> )	08	5.1
3.	College of Agricultural Science and Animal Production ( <b>CASAP</b> )	05	3.2
4.	College of Engineering and Engineering Technology ( <b>CEET</b> )	29	18.6
5.	College of Natural Resources and Environmental Management ( <b>CNREM</b> )	03	1.9
6.	College of Education ( <b>COED</b> )	31	19.9
7.	College of Management Sciences ( <b>COLMAS</b> )	07	4.5
8.	College of Natural Sciences ( <b>COLNAS</b> )	15	9.6
9.	College of Physical Sciences ( <b>COLPAS</b> )	05	3.2
10.	College of Veterinary Medicine ( <b>CVM</b> )	-	-
	<b>Total</b>	<b>156</b>	<b>100</b>
	<b>Academic level</b>		
1	200	17	10.9
2	300	32	20.5
3	400	52	33.3
4	500	55	35.3
	<b>Total</b>	<b>156</b>	<b>100</b>

Table 2.0 above captures the demographic variables of the respondents. A close look at the table above shows that out of the 156 respondents, which is the total number of respondents who returned their questionnaires correctly filled, 69 (44.2%) were males while 87 (55.8%) were females. Also, the respective college of the respondents and

academic levels were given as indicated alongside the frequency count and percentage of frequencies. Hence, the study reports a total number of 156 respondents.

**Table 3:** Availability of Electronic Information Resources in MOUAU Library.

S/N	Items	Available (A)	Not Available (NA)
1.	Compact Disc - Read Only Memory (CD -ROM)		
2.	Online Databases		
3.	Offline Databases		
4.	Electronic Newspapers		
5.	Electronic Bulletin		
6.	Electronic Books		
7.	Electronic Journals		
8.	Electronic Newsletter		
9.	Electronic Projects , Theses & Dissertations		
10.	Electronic Magazines		

In a bid to ascertain the Electronic Information Resources (EIRs) available in the Library understudied, the researcher made due observations. This was guided by a checklist as can be seen in table 3above. The findings made revealed that the library has a number of online electronic information resource databases such as AGORA, OARE and HINARI. In addition, TEEAL was observed to be the only CD-ROM/offline electronic information resources resident in the library. Consequently, there were no near-line electronic information resources as can be seen.

**Table 4.0:**

Responses on the Electronic Information Resources Used by Students.

S/N	ITEMS	SA=4	A=3	D=2	SD=1	STD. DEV	Mean	Decision
1.	CD-ROM Databases	130	20	5	1	0.521	3.79	Accepted
2.	Online Databases	98	31	24	3	0.821	3.44	Accepted
3.	Offline Databases	87	45	15	9	0.877	3.35	Accepted
4.	Electronic Newsletter (E - Newsletter)	10	16	63	67	0.868	1.80	Rejected
5.	Electronic Bulletin (E - Bulletin)	9	11	60	76	0.838	1.70	Rejected
6.	Electronic Magazine s (E- Magazines)	37	29	29	61	1.209	2.27	Rejected
7.	Electronic Newspaper(E - News)	14	13	83	46	0.861	1.97	Rejected
8.	Electronic Books (E-Books)	9	29	57	61	0.897	1.91	Rejected
9.	Electronic Journals (E - Journals)	16	20	85	35	0.869	2.11	Rejected
10.	Electronic Projects, Theses and Dissertations	7	6	49	94	0.774	1.53	Rejected
	<b>GRAND MEAN</b>						<b>2.39</b>	<b>Rejected</b>

KEYS: SA = Strongly Agree, A = Agree, D = Disagree, SD = Strongly Disagree.

To further validate the observations made by the researcher as seen in table 3.0 above, the respondents were asked to indicate in the questionnaire issued to them, the EIRs that they make use of in the library. A glance at table 4.0 above further shows their responses. From the table, it was revealed that out of the ten (10) EIRs itemized and given the Criterion Mean of 2.50; CD-ROM databases were accepted as being available in the library as they claimed a massive 3.79 mean response rate and a standard deviation of 0.521. Furthermore, online databases were also accepted as they had a mean response rating and an accompanying standard deviation of 3.43(0.858). Also, the respondents accepted that

they make use of offline databases and such recorded a mean response rate of 3.35 and a standard deviation of 0.877. These EIRs were accepted because as could be seen in the table, their response mean ratings were up to the criterion mean of 2.50 and above, hence, they are positively rated. Sequel to the outcomes, it is quite clear that the above EIRs are available in the MOUAU Library. However, the table also revealed that there were no local host or near-line electronic information resources such as; e-magazines, e-journals, e-newspapers, e-books, e-newsletters, e-bulletins and e-projects, theses and dissertations in the library as they were rejected. As such, these near-lines resources were rejected as their response mean ratings fell below the criterion mean of 2.50. Based on these later outcomes, it is gainful to say that the above EIRs are not available in MOUAU Library.

Following the analysis above, it is quite evident that a few EIRs are available in the library under study and this affirms the analogy of Owolabi, Idowu, Okocha and Ogundare (2016) who in their study on utilization of electronic information resources by undergraduate students of university of Ibadan, asserted that EIRs are available for use by undergraduates in academic libraries. Howbeit, as with most libraries in the third world countries, they are insufficient. Hence, the reason for the acquisition of only a few EIRs in the library as seen above may be attributed to inadequate funding, low use of electronic information resources which may be as a result of unawareness and poor ICT skills on the part of the students and staff, and possibly shortage of staff who are trained in the art of manipulating these EIRs.

**Table 5:**

Factors that Determine the Utilization of EIRs by Undergraduate Students of MOUAU Library.

S/N	Item Statement	SA=4	A=3	D=2	SD=1	Std Dev.	Mean	Decision
1.	Improved and better funding for the library.	126	27	2	1	0.486	3.78	Accepted
2.	Provision of adequate power supply.	73	82	1	-	0.537	3.46	Accepted
3.	Availability of relevant EIRs.	132	24	-	-	0.362	3.85	Accepted
4.	Creation of user awareness programmes.	62	89	5	-	0.546	3.37	Accepted

S/N	Item Statement	SA=4	A=3	D=2	SD=1	Std Dev.	Mean	Decision
5.	Provision of digital literacy programmes.	114	36	6	-	0.540	3.69	Accepted
6.	Provision of adequate and functional computers and computer accessories.	127	26	3	-	0.450	4.19	Accepted
7.	Strengthening of internet connectivity/bandwidth.	116	30	10	-	0.590	3.68	Accepted
8.	Creation of better interactive user friendly databases.	104	48	2	2	0.582	3.63	Accepted
9.	Provision of a better learning environment within the library.	81	65	10	-	0.615	3.46	Accepted
10.	Recruitment of skilled and professional ICT staff.	77	73	3	3	0.634	3.44	Accepted
	<b>Grand Mean</b>						<b>3.66</b>	<b>Accepted</b>

### Criterion Mean = 2.50

In Table 5, the mean responses on factors that determine the utilization of EIRs by undergraduate students' in MOUAU Library were captured. Also given alongside is the standard deviation as accrued. Results from the table revealed thus: provision of adequate and functional computers and computer accessories 4.19(0.450), availability of relevant EIRs 3.85(0.362), improved and better funding for the library 3.78(0.486), provision of digital literacy programmes 3.69(0.540), strengthening of internet connectivity/bandwidth 3.68(0.590), creation of better interactive user friendly databases 3.63(0.582), provision of adequate power supply 3.46(0.537), provision of a better learning environment within the library 3.46(0.615), recruitment of skilled and professional ICT staff 3.44(0.634) and creation of user awareness programmes 3.37(0.546). Hence, all the variables were rated positive and thus accepted as they all superceded the criterion mean of 2.50. Consequently, this portrays all the variables in the table 5 as the necessary factors that determine the utilization of EIRs in academic libraries in Nigeria.

In line with the above, the respondents have adjudged the factors mentioned in the table to be worthy determinants towards their use of EIRs. Hence, it is obvious that when all the factors outlined above are



adequately provided, they will go a long way in ensuring effective and efficient utilization of the available EIRs resident in academic libraries, particularly the MOUAU Library.

**Table 6:** Responses on the Extent to which Determinants of EIRs Enhance its Utilization by Undergraduate Students

S/N	Item Statement	VHE=4	HE =3	LE =2	NE=1	Std Dev.	Mean	Decision
1.	They save the time of students'during information search and retrieval processes.	95	58	3	-	0.531	3.59	Accepted
2.	They save students' costs incurred in other to be physically present at the library to access information resources.	75	79	2	-	0.526	3.47	Accepted
3.	They enhance better information transfer/delivery via shared network (internet)	69	87	-	-	0.498	3.44	Accepted
4.	They ensure easy and wider access to information resources resident in the library.	107	43	6	-	0.554	3.65	Accepted
5.	They reduce the rate of digital phobia (fear) in students.	68	45	43	-	0.831	3.16	Accepted
6.	They ensure a more proactive information search and retrieval process.	112	39	5	-	0.530	3.69	Accepted
7.	They promote and introduce variety to the information resources available for use by students.	115	37	4	-	0.508	3.71	Accepted
	Grand Mean						3.53	Accepted

**Criterion Mean = 2.50**

Key: VHE= Very High Extent, HE= High Extent, LE= Low extent, NE= No Extent

Table 6 provides a breakdown of the mean responses by respondents on how the determinants of EIRs enhance its utilization by undergraduate students of the MOUAU Library together with their accompanying standard deviations. From the table, it could be ascertained that all the variables recorded a positive mean response outcome. As such, the responses show that; they promote and introduce variety to the information resources available for use by students recorded a mean response of 3.71 and a standard deviation of (0.508), they ensure a more proactive information search and retrieval process 3.69(0.530), they ensure easy and wider access to information resources resident in the library 3.65(0.554)they save the time of students' during information search and retrieval processes 3.59(0.531), they save students' costs incurred in other to be physically present at the library to access information resources 3.47(0.526), they enhance better information transfer/delivery via shared network i.e. internet 3.44(0.498) and they reduce the rate of digital phobia (fear) in students 3.16(0.831). Consequently, as seen above, all the variables recorded a mean response rate beyond the criterion mean of 2.50 and as such, are accepted. From the foregoing, it could be then be deduced that all the variables are ways through which the determinants of EIRs can enhance its utilization by undergraduate students in academic libraries.

Having stated the above, there is a lot to be gained when all the determinants of utilization of EIRs are employed. This clearly confirms the study carried out by Ray and Day (1998) which found out that students felt that using EIRs saved them time, and found it relatively easy to use while other students stated that if the CD-ROM was busy, they would wait for it to become free rather than use the print tool. The finding also proved right the study by Okello-Obura and Magara (2008) which revealed that users derived a lot of benefits from electronic resources such as gaining easy access to a wider range of information. Hence, it becomes vivid that the presence of these determining factors does not only ensure adequate utilization of EIRs by students but also enhances it in different vital aspects.

**Table 7:** Impact of EIRs on the Academic performance of Undergraduate Students in MOUAU

S/N	Item Statement	SA=4	A=3	D=2	SD=1	Std Dev.	Mean	Decision
1.	They promote more in-depth and expansive search in specific subjects and disciplines.	115	40	1	-	0.490	3.72	Accepted
2.	They promote access to relevant and current information, thus assisting students' in better research and classroom activities.	115	41	-	-	0.442	3.74	Accepted
3.	They enhance students' learning and research capabilities.	86	68	1	1	0.550	3.53	Accepted
4.	They promote students' collaborative works within and outside their learning environment.	86	67	3	-	0.538	3.53	Accepted
5.	They foster and enhance students' independent learning.	104	50	2	-	0.504	3.65	Accepted
6.	They provide alternative avenue for information sourcing thus enhancing research outputs and results.	117	36	3	-	0.487	3.73	Accepted
7.	They train students' to compete globally with their counterparts as they are exposed to current trends.	94	56	6	2	0.636	3.54	Accepted
	<b>Grand Mean</b>						<b>3.63</b>	<b>Accepted</b>

**Criterion Mean = 2.50**

Table 7 shows the mean responses on the impacts of EIRs on the academic performance of undergraduate students' in the MOUAU

Library together with their respective standard deviations. The outcome of the analysis shows that all the variables were positively rated. The result revealed that the respondents felt that EIRs promote access to relevant and current information, thus assisting students' in better research and classroom activities. This gave a mean response of 3.74 and a standard deviation of (0.442). Furthermore, they provide alternative avenue for information sourcing thus enhancing research outputs and results 3.73(0.487), they promote more in-depth and expansive search in specific subjects and disciplines and hence gave a response rate of 3.72(0.490), they foster and enhance students' independent learning 3.65(0.504), they train students' to compete globally with their counterparts as they are exposed to current trends 3.54(0.636), they enhance students' learning and research capabilities 3.53(0.550) and they promote students' collaborative works within and outside their learning environment 3.53(0.538). In line with the above, the responses were accepted as they all met the requisite criterion mean score of 2.50. Also, having recorded a grand mean of 3.63 ( $3.63 > 2.50$ ), it could then be deduced from the table that the variables stand as worthy impacts of EIRs on the academic performances of undergraduate students in academic libraries.

Discussing on the above, it is hence valid to state here that EIRs present users with a platform through which information can be accessed and retrieved with ease and from any location via the instrumentality of the internet. This is a simple analogy of information being at ones finger tips and this is what creates a major discrepancy between the print and electronic information resources. The above assertions may well fall in line with the affirmations of Dadzie (2005) who noted that electronic resources are invaluable research tools that provides access to information that might be restricted to the user due to geographical location or finances, access to more current information, and provision of extensive links to additional resources related contents. Hence, this should serve as a push factor for the library management towards ensuring that adequate funds are allocated for the procurement of electronic information resources as the benefits both on the library and the students are huge. As a matter of fact, the library saves itself a lot in the area of manpower, as it will have lesser users to handle since users can access the information they need at the comfort of their homes and offices, over space i.e. the internet.

## Summary and Conclusions

This research work was carried out to study the determinants of utilization of electronic information resources (EIRs) by undergraduate students in MOUAU Library. The findings from this study have revealed the available EIRs in the MOUAU Library to include mainly databases such as CD-ROM databases, online databases and offline databases. However, much is still left to be desired, moreso in the area of near-line or local host electronic resources such as Electronic Books (E-Books), Electronic Journal (E-Journals), Electronic Newsletters (E-Newsletters), etc., as these will go a long way to enhance students' research.

Furthermore, the study revealed; improved and better funding for the library, provision of adequate power supply, availability of relevant EIRs, creation of user awareness programmes, provision of digital literacy programmes, provision of adequate and functional computers and computer accessories, strengthening of internet connectivity/ bandwidth, creation of better interactive user friendly databases, provision of a better learning environment within the library and recruitment of skilled and professional ICT staff, as factors that determine the utilization EIRs by undergraduates in the library. Consequently, when eventually these factors are put in place in the library, they go a long way to enhance the use of these EIRs provided by the library as they endear the users to tap into the benefits of utilizing EIRs in their academic pursuits.

Subsequently too, the study went ahead to point out how these determinants enhance the utilization of EIRs by undergraduate students'. They save the time of students' during information search and retrieval processes, they save students' costs incurred in other to be physically present at the library to access information resources, they enhance better information transfer/delivery via shared network i.e. internet, they ensure easy and wider access to information resources resident in the library, they reduce the rate of digital phobia (fear) in students, they ensure a more proactive information search and retrieval process and they promote and introduce variety to the information resources available for use by students, were pointed out in line with the above, as the ways through which the determinants enhance utilization. This is true as undergraduate students stand to gain a lot when they make use of EIRs in their academic activities.

Finally, the study outlined a number of impacts of EIRs on the academic performance of the students which include: They promote access to relevant and current information, thus assisting students' in better research and classroom activities, they promote more in-depth and



expansive search in specific subjects and disciplines, they enhance students' learning and research capabilities, they foster and enhance students' independent learning, they promote students' collaborative works within and outside their learning environment, they provide alternative avenue for information sourcing thus enhancing research outputs and results and finally, they train students' to compete globally with their counterparts as they are exposed to current trends. These impacts sure serve as benchmarks against which the development of a suitable electronic information resource collection is hinged.

### **Recommendation**

In line with the findings of this study, the following recommendations were made:

- i. Although MOUAU Library has few electronic information resources resident in it, there is still need to invest more in the area of procuring the necessary EIRs especially local host/near-line electronic information resources such as Electronic Books (E-Books), Electronic Journal (E-Journals) and a host of others that are relevant to the academic activities of students.
- ii. Furthermore, there is need for better funding of academic libraries especially in the face of these emerging trends (EIRs). Hence, the library sponsors should do more in the area of increase in funds allocated to the library. In like vein, the library management has to come out with additional ways of sourcing funds for the library especially through marketing of library services so as to generate funds internally.
- iii. As a matter of serious consideration, the library management should ensure that all the factors that have been outlined in the course of this study are being implemented as this will ensure and encourage utilization of electronic information resources by students' especially, undergraduates. Hence, adequate power supply, better funding, acquisition of relevant EIRs, consistent user awareness programmes, etc. should be employed to guarantee optimum use.
- iv. It is also important for the library management to know that these factors further enhance utilization of EIRs as buttressed in the point above. Hence, this should amongst other things serve as an eye

opener as the absence of these factors will mar the whole process and consequently result in little or non-utilization of EIRs.

- v. What is the use of utilizing EIRs if there are no impacts on the academic performances of the students? As such, the various impact mentioned in this study should form the back-bone on which to lean on in making decisions regarding purchase, subscription and implementation of the process. There is a lot to be benefited by the library and moreso the students especially as the library is all about creating new avenues to better serve its clients or user. Hence, what better way can this be achieved, other than by providing and putting in place strategies that would guarantee effective and efficient utilization of EIRs.

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