

Accessing Electronic Information Resources by Undergraduate Students in Federal Universities in North Central, Nigeria: Issues and Challenges

¹Abdullateef Babatunde Oshinaike; ²Sherif Kunle Yusuf; ³Monsuru Omotayo Quadri

*^{1,2} The University Library, Federal University, Lokoja, Kogi State, Nigeria,
labdullateef.oshinaike@fulokoja.edu.ng;*

2sherif.yusuf@fulokoja.edu.ng, skyus4real@gmail.com

*³The University Library, Tai Solarin University of Education, Ijebu Ode, Ogun State,
Nigeria, quadrimo@tasued.edu.ng,*

Abstract

The paper assessed the constraints undergraduate students faced in accessing electronic information resources in Federal Universities in North Central Zone of Nigeria. The objectives were to find out the level of access to EIRs use by undergraduates in Federal Universities in the North Central Nigeria, and to identify the challenges to EIRs usage by undergraduate in Federal Universities in North central, Nigeria. Survey research design of the descriptive type was adopted for the study. Population for this study comprised undergraduates in the five conventional Federal Universities in North Central, Nigeria, with 46,992. Purposive sampling technique was used to select two common departments in all the Universities and 20% of the total population of undergraduates from each department using proportional sampling technique. Sample size for the study is 1,258 undergraduates. The study found out low level of accessibility to EIRs by undergraduates in the Federal Universities in North Central Nigeria. It also discovered unavailability to EIRs, inadequate EIRs, lack of relevance of available EIRs to respondents needs and frequent downtime of the internet server were some of the inhibiting factors to access electronic information resources. Based on the findings, the study recommended that federal universities management should advance strategies to increase the provision of relevant electronic information resources, level of accessibility to EIRs and also adequate funding should be provided by Federal Government through its agencies such as National Universities Commission (NUC) and put in place a campus network which would enhance undergraduates access to internet and use of EIRs.

Keywords: *Accessing, Electronic Information Resources, Federal Universities, Undergraduates, Nigeria*

Introduction

EIRs have been playing vital role in the education life of undergraduates in Nigerian universities. These are made possible through the power of internet that makes resources to be accessible to the undergraduates in the various locations such as cyber cafe, home, hostels, media centres, just to mention a few (Manoj, Kumar, Gauri and Bimal, 2011). The preponderance of these internet-based resources could become meaningful to education system if students could be given unconditional access to the instructional materials to improve teaching-learning process. Sivasubramaniyan and Batcha (2012) express that accessibility is the key to electronic resources that could be found in the ICT centres, documentation and media centres as well as libraries. The principle guiding provision of EIRs to support students' learning requires that these interventions should really be accessible to undergraduates anytime, anywhere. The provision of appropriate EIRs in the learning space only becomes meaningful when the participants in the programme have unrestricted access to the interventions at the points of need. This would help

learners in making appropriate decisions on how to effectively utilize these resources to enhance learning at different stages of the programme. In the long run, high degree of accessibility would engender sustainability in the system, as students would be able to get the best out of the learning resources provided for instructional purposes.

Accessibility to EIRs could be influenced by individual and technological factors as identified by scholars in information system. In the opinion of Gakibayo, IkojaOdongo and Okella-Obura, 2013, issues related to accessibility to EIRs could sometimes be influenced by the personal characteristics of the users, especially the undergraduates and information carriers. The personal characteristics of the undergraduates could include their attitude, perception, socio-economic background, physical or other psychological indices that could determine the extent to which users would effectively put available resources into optimum use. These personal factors could positively or negatively influence accessibility to EIRs among undergraduates. For instance, students from poor homes might find it difficult to afford the financial implication of access some internet-based resources to support classroom instructions. On the other hand, students from wealthy parents could easily pay to access any form of resources that could be useful for educational purpose. In the same vein, physical structure of the users could go a long way in ensuring easy access to some specific educational facilities within the learning institution. Students with disabilities could find it difficult to gain access to some facilities in the libraries and documentation centers due to their specific or peculiar characteristics. These personal characteristics could hinder the level of accessibility to EIRs among undergraduates. The characteristics of the channels through which information flows could also hinder effective access by the users. Some channels or carriers require specific skills and competences to navigate the content and this could deny undergraduates without such skills within the system.

The peculiarities of the undergraduates at this level of education require that they are provided with relevant information to enable them to meet the ever-increasing challenges of today's world. The development in the modern society necessitates the need for undergraduates to be prepared with adequate skills to confront the challenges posed by the digital society. The inability of the lecture method of instruction widely adopted in universities to provide undergraduates with adequate information and learning resources implies that students would have to search for additional sources of information to solve personal and societal problems (Akufo and Budu, 2019). It has become practically impossible for lecturers in the universities across the globe to provide students with adequate information to become functional members of the digital society. Consequently, undergraduates require more information than what the conventional mode of teaching could offer, and this makes it imperative to search for other sources of information to get current and up-to-date learning materials that could be used to complement classroom instruction. This makes life easier for undergraduates as they would be able to get different perspectives to a particular concept and also collaborate with other scholars across the globe to solve regional or world problems.

Thus, it is expected that undergraduates would require access to huge volume of relevant information, as provided by the school management through libraries. Within the library system, different channels are provided for students to access information and available learning resources. In the higher education levels, learning materials are made available for undergraduates to support the classroom activities

and solve societal problems. The print materials are usually provided to allow students get additional information to boost their reading and mental dexterity. It is expected that this would improve their learning and research abilities- to solve different problems within the instructional space. These print materials had been used over the years to engage undergraduates in instructional activities within and outside classroom setting. However, the instructional constraints posed by the print materials make it necessary for a veritable tool that would allow students and other library users get unrestricted access to learning resources at all times. EIRs have been touted as strategic information tools that afford students the opportunity to access and utilise vast amount of learning materials for instructional purposes. EIRs are veritable internet resources that engage learners in instructional content. Students are able to easily access information using EIRs, unlike the traditional library setting that is restricted by time and space. In the traditional library setting, students are expected to be physically present in the library before using library resources. This makes information system to become cumbersome and not appropriate to the needs and aspirations of the 21st century learners.

Objectives of the Study

The study objectives were to:

1. ascertain the level of access to EIRs use by the undergraduates in Federal Universities in the North-Central Nigeria.
2. identify constraints to EIRs usage by undergraduates in Federal Universities in the North-Central Nigeria.

Literature Review

Adesoye and Amusa (2013) express that convenient access to and use of e-resources database in the media centres, documentation centres and libraries remains strategic in ensuring that undergraduates put these resources into maximum instructional use. They further revealed that the respondents preferred electronic resources that are easily accessible to enhance learning and other academic activities. Students would practically show positive disposition to utilize available resources, if they can easily access the materials to support their academic pursuits. It would tantamount to waste of resources if these facilities are acquired, but students do not have access to them. This implies that accessibility remains a strategic factor in the planning and acquisition of EIRs in higher institutions across the world. Ferdinand, Ruth and Paul (2015) posit that accessibility of e-resources in the libraries, media centres, documentation and ICT centres remains the cardinal principle behind the utilization of the e-resources among the undergraduates.

Accessibility remains a critical factor in the affective utilization of EIRs for learning and research activities. The importance of accessibility to electronic resources among the undergraduates cannot be overemphasized in the Nigerian universities as Ani, cIt had become seemingly impossible for lecturers to equip learners with all the required knowledge and skills that would be needed to function effectively in the 21st century society. Thus, undergraduates are expected to leverage on the capabilities provided by EIRs to support classroom instruction. This implies that EIRs hold the key to recent and up-to-date information that undergraduates would require to solve personal and societal problems. Ada (2013) as cited by Oshinaike (2022) reported that a significant number of students are not given adequate access to relevant EIRs; hence, they are deprived of enjoying the benefits derivable from the use of EIRs in their study. Alhassan and Macaulay, (2015) assert that the utilization of electronic information resources by undergraduates has a remarkable influence on

their participation in different academic activities. It is important to note that a significant number of students at tertiary level of education consistently make use of the Internet, electronic mails, electronic journals, electronic bulletin boards, telecommunication, telefax, databases, e-books and scholarly e-databases to execute different academic tasks and solving problems in the society.

The capabilities provided by electronic information resources had made the undergraduates have unrestricted access to current and up-to-date information as well as ensuring that a platform is created for easy access to engaging learning resources that would cater for the diverse learning needs in the school system. In addition, low ICT skills, poor accessibility and unfriendly environmental factors could have adverse effect on frequency of use of e-resources by the undergraduates to advance teaching/learning process. This implies that effective utilization of EIRs by undergraduates could be a function of many external factors and these variables are expected to be duly considered by the stakeholders in education, while planning and implementing any technology integration programme (Adeleke and Nwalo, 2017). Kabiru and Usman (2020) conclude that accessibility of EIRs has been a major factor towards the use of the resources and a key determinant in the effective use of EIRs to support and enhance research and education. The values of EIRs in education could easily be manifested by giving undergraduates adequate access to these learning resources within the instructional space, such that the students would be able to understand the capabilities provided by EIRs and thereafter leverage these abilities to facilitate learning and research activities.

Egberongbe (2011) identified strategic factors that could hinder accessibility and utilisation of EIRs in Nigerian universities to include absence of vital preparation, inadequate funding from strategic stakeholders and inadequate practical training to equip users with requisite skills and competences to effectively utilise ICT platforms and devices. It had been argued that many library staff and students are not properly trained on the functionality of EIRs and how to effectively utilise the materials to support classroom instruction. Library staff who are not well trained on appropriate skills would find it extremely difficult to operate in the 21st century library system. Tella, Orim, Ibrahim and Memudu (2018) reported that many academic staff and undergraduates use the ERs in the university library infrequently just as he added that students claimed that their lecturers never encouraged them to visit the library not to talk of accessing the ERs available therein. Prangya and Rabindra (2013) identified the following as challenges towards undergraduates in making use of the e-resources in media centres, libraries and documentation centres such as lack of training on the part of the undergraduates, poor infrastructure and very high cost of accessing these virtual EIRs by the students. They have been a bottleneck towards the undergraduates using the e-resources.

Another problem identified as a challenge towards the use of electronic resources amongst the undergraduates and teeming users of the media, documentation centers as well as libraries was slow internet access. However, the slow speed amounted to waste of time required to retrieve relevant information to make a quick decision. The authors further stressed lack constant electricity supply and access to e-resources (Prangya and Raindra, 2013). Adeleke and Nwalo (2017) as cited by Oshinaike (2021), summed up the following as challenges towards undergraduates efficient and effectively utilized resources in the media centers, documentation libraries and ICT centers to include fluctuating internet services, inadequate technological skills,

inadequate training for the library personnel, epileptic power supply and low band width.

Apparently, these myriads of constraints could be stumbling blocks in accessing and utilizing learning resources in the library. In some cases, the stakeholders place emphasis on the acquisition of EIRs without due consideration to the factors that could hinder the use of the materials by the users. It is critical to take note that these constraints could discourage undergraduates from patronizing library and could reduce the level of use of learning resources in the system. This could defeat the purpose for which EIRs are acquired in the instructional setting. EIRs are made available to provide undergraduates and their teachers with relevant information to enhance teaching, learning and research activities. Thus, steps have to be taken to ensure that these factors are considered and well taken care of, in the planning and implementation of library information system. This would go a long way in ensuring that available EIRs in the library are adequately utilized for learning and research.

Despite the importance and popularity of EIRs, it had been observed that most undergraduates are not making use of these learning resources to facilitate instructional activities. Mawere and Sai (2018) opined that in spite of the availability of the EIRs facilities in the e-library of the Great Zimbabwe University, adoption and accessibility rate is still very limited among the students. Similarly, Ankrah and Atuase (2018) in their study on access and usage of e-resources amongst undergraduates in Nigeria revealed that undergraduates do not have enough access to the use of e-resources as compared to printed information in the library. Many undergraduates find it difficult to effectively utilize EIRs to enhance instructional process. This under-utilization of EIRs within the instructional space could be attributable to many factors, in terms of psychological and physical factors. Scholars had identified several factors that could inhibit effective utilization of learning resources, especially by undergraduates. Accessibility of electronic resources has greatly affected the way and manner undergraduates actually read and use the materials to advance their academic activities. The undergraduates use only what is easily accessible to them within the learning space (Manjack, Dangani and Fari 2018). Thus, accessibility to vital information through the use of e-resources among undergraduates cannot be downplayed in educational institutions. It is expected that provision of EIRs might not make any impact on the learning and research unless undergraduates are given the opportunity to access the resources without much restrictions.

Alhassan and Macaulay (2015) stated that the growth in the emergence of electronic information resources has brought a quiet number of challenges to library administrators worldwide. This is due to the fact that the process is a radical departure from traditional printed materials provision to a hybrid product that affords both the print and electronic sources to be provided concurrently to the undergraduates in the libraries

Research Methodology

Survey research design of the descriptive type was adopted for the study. Simon and Goes (2013) emphasized that descriptive research is good for conducting social and behavioral studies and also assist to describe and collect data from respondents without any ambiguity. The population for this study comprised the undergraduates in the five conventional federal universities in the North-Central, Nigeria. University of Abuja, Abuja University of Ilorin, Kwara State Federal University, Lokoja, Kogi

State Federal University, Lafia, Nassarawa State and University of Jos, Plateau State
 The total population of the undergraduates in the universities was 46,912. The study used two stage sampling procedure to select universities and undergraduates across the Federal universities in the region. The sampling was carried out in two stages, In the first stage, the faculties common to all the selected universities were purposively selected. The selected faculties are Arts, Social Sciences and Sciences.

Also, two common departments in all the universities were purposively selected from each of the faculties. Thus, Departments of English and History were selected from Faculties of Arts, while Chemistry and Mathematics Departments were selected from Faculties of Sciences. Also, Departments of Economics and Political Science were selected from Faculties of Social Sciences. At the second stage of the sampling, 20% of the total population of undergraduates from each of the departments was proportionately selected from the chosen universities. This was to ensure equal representation of the respondents from the selected universities. The respondents in the study were limited to 200-400 level undergraduates in the selected universities. The 100 level students were excluded because they were considered fresh and might not have adequate information about the topic of investigation. Therefore, a total of 1,258 undergraduates constituted the sample for the study. The data was analyzed using descriptive statistics, simple frequency, percentages, mean score, standard deviation.

Result and Discussion of Findings

Table 1: Level of accessibility to EIRs use by respondents

Items	VA	A	OC	NA	Mean	STD.D ev
Electroni c Theses	274 (29.6%)	310 (33.5%)	179 (19.4%)	162 (17.5%)	3.75	0.90
CD-ROMs	249 (26.9%)	295 (31.9%)	187 (20.2%)	194 (21.0%)	3.66	0.88
Electroni c Journals	245 (26.5%)	272 (29.4%)	233 (25.2%)	245 (26.5%)	3.66	0.85
Online catalogue	221 (23.9%)	266 (28.8%)	275 (29.7%)	163 (17.6%)	3.60	0.71
Electronic Database	162 (17.5%)	383 (41.3%)	198 (21.4%)	183 (19.8%)	3.55	0.74
Electronic Manuscripts	164 (17.7%)	360 (38.9%)	203 (21.9%)	198 (21.4%)	3.52	0.81
Research report	168 (18.2%)	339 (36.6%)	228 (24.6%)	190 (20.5%)	3.52	0.69
Online reference work	142 (15.4%)	347 (37.5%)	236 (25.5%)	200 (21.6%)	3.47	0.68

Electronic Magazines/ Newspapers	183 (19.8%)	254 (27.5%)	258 (27.9%)	230 (24.9%)	3.39	0.72
Bibliographic database	124 (13.4%)	315 (34.1%)	240 (25.9%)	246 (26.6%)	3.34	0.82
Electronic books	88 (9.5%)	317 (34.3%)	315 (34.1%)	205 (22.2%)	3.31	0.76
e-Full text articles	75 (8.1%)	255 (27.6%)	345 (37.3%)	250 (27.0%)	3.17	0.73
Electronic maps	93 (10.1%)	337 (36.4%)	276 (29.8%)	219 (23.7%)	3.07	0.66

Weighted Average = 3.46

Key=Very Accessible (VA=4), Accessible (A=3), Occasionally Accessible (OA=2), Not Accessible (NA=1)

A low level of accessibility was recorded by the undergraduates in this study. The degree of accessibility of EIRs and points of EIRs access among undergraduates in the federal universities in North-Central, Nigeria were investigated. Findings from the study reveal that only a few EIRs such as e-theses, CD-ROMs, e-journals and online catalogues were easily accessible to undergraduates in federal universities in NorthCentral Nigeria. This might not be unconnected with the fact that undergraduates rely greatly on online journals for their research activities, especially while writing their final year project. Thus, school libraries might give access to e-theses and online journals, so that undergraduates can easily utilize these resources for learning and research purposes. EIRs such as bibliographic databases, e-books, full text articles and maps were found not to be easily accessible by the undergraduates. According to Fu (2013), the benefits derivable from the use of EIRs by undergraduates include access to current and up-to-date learning resources, promotion of critical thinking skills and promotion of creative learning environment, and these relevant merits should be made accessible to all categories of students in the classroom. Generally, there is a low level of accessibility to EIRs among the undergraduates in federal universities in NorthCentral Nigeria. This could be due to the unfriendly environmental factors in most of the libraries and this might reduce the rate of accessibility to the EIRs by the undergraduates.

This result corroborates Ada (2013) that a significant number of students are not given adequate access to relevant EIRs; hence, they are deprived of enjoying the benefits derivable from the use of EIRs in their study. Additionally, Mawere and Sai (2018) found that despite the availability of the EIRs facilities in the e-library of the Great Zimbabwe University, adoption and accessibility rate is still very limited among the students. In contrast, Ternenge and Kashimana (2019) found that the following ejournals, e-newspapers, Online Public Access Catalogue (OPAC), CD-Rom databases, e-books, online databases, e-research reports, virtual libraries online, science direct online and Ebscohost reference databases EIRs were accessible to a great extent with highest mean score among students in federal university of agriculture library Markudiwhile e-bibliography databases, e-magazines, DVD-

ROM, Sabinet reference database as well as e-manuscripts were also accessible, but to a low extent.

Similarly, Manjack, Dangani and Fari (2018) discovered in their comparative study between Federal University Kashere and Gombe State University that of all the available EIRs in the university libraries, CD-ROMs and DVD were the mostly accessible EIRs among the students in Gombe State University while the respondents from Federal University Kashere acknowledged that IR is the most accessible EIRs in the university. (2017) found that EIRs such as OPAC, e-journals, full-text databases, IRs as well as reference databases were available and accessed for research activities and to support teaching and learning amongst the undergraduates.

From the result, 53.5% of the respondents indicated that “inadequacy of available Electronic information resources is one of the major challenges confronting the use of EIRs in the universities”. Also, 53% affirmed that “coverage on EIRs is not suited to their needs”. 68.4% of the undergraduates agree that lack of training on EIRs usage remains a challenge to effective utilization of EIRs. Generally, the results revealed that unavailability of EIRs, inadequacy of electronic information resources, unsuitability of EIRs to respondents’ needs, inadequate training and frequent downtime of servers appeared to be the basic impediments to the use of EIRs by undergraduates in the federal universities in the North-Central, Nigeria.

Table 2: Constraints to use of EIRs by undergraduates in the federal universities in North central, Nigeria

Constraints	Great extent N %	Moderate extent N %	Little extent N %	No extent N %	Mean	Std. Dev.
Unavailability of Electronic information resources	240 (25.9%)	229 (24.8%)	219 (23.7%)	237 (25.6%)	2.49	1.13
Inadequacy of available Electronic information resources	272 (29.4%)	223 (24.1%)	189 (20.4%)	241 (26.1%)	2.43	1.16
Coverage on EIRs is not suited to my needs	269 (29.1%)	221 (23.9%)	220 (23.8%)	215 (23.2%)	2.41	1.16
Frequent downtime of server	283 (30.6%)	204 (22.1%)	221 (23.9%)	217 (23.5%)	2.40	1.15
Lack of training on EIRs usage	373 (40.3%)	260 (28.1%)	134 (14.5%)	158 (17.1%)	2.08	1.11
Limited access to computer terminals	608 (65.7%)	115 (12.4%)	43 (4.6%)	159 (17.2%)	1.73	1.15

Lack of ICT skills to effectively access Electronic information resources	639 (69.1%)	130 (14.1%)	39 (4.2%)	117 (12.6%)	1.60	1.04
Technophobia (fear of ICT facility)	663 (71.7%)	89 (9.6%)	59 (6.4%)	114 (12.3%)	1.59	1.05
Lack of support from university staff	632 (68.2%)	118 (12.8%)	93 (10.1%)	82 (8.9%)	1.59	.99
Uncooperative library staff to facilitate access	657 (71.0%)	81 (8.8%)	101 (10.9%)	86 (9.3%)	1.58	1.01
Unfriendly user interface	642 (69.4%)	104 (11.2%)	101 (10.9%)	78 (8.4%)	1.58	.99
Time consumption	651 (70.4%)	113 (12.2%)	82 (8.9%)	79 (8.5%)	1.56	.97
Lack of time to use	613 (66.3%)	165 (17.9%)	99 (10.7%)	48 (5.2%)	1.55	.88
Distraction from doing other work	651 (70.4%)	116 (12.5%)	91 (9.8%)	67 (7.2%)	1.54	.94
Lack of awareness about Electronic information resources	666 (72.0%)	103 (11.1%)	75 (8.1%)	81 (8.8%)	1.54	.97
Lack of conducive environment	674 (72.9%)	104 (11.2%)	67 (7.2%)	80 (8.6%)	1.52	.96
Lack of access to Electronic information resources	672 (72.6%)	113 (12.2%)	79 (8.5%)	61 (6.6%)	1.49	.90
Network problem	697 (75.4%)	115 (12.4%)	69 (7.5%)	44 (4.8%)	1.42	.82

Weighted Mean = 1.8

Constraints to the use of EIRs by undergraduates in federal universities in the North-Central geo-political zone, Nigeria

Unavailability of EIRs, inadequacy of available EIRs, unsuitability of EIRs to respondents' needs and frequent downtime of server were the major constraint to the use of EIRs. The study also found lack of awareness about available EIRs, conducive environment, access to EIRs and network problem as constraints to the use of EIRs. This might be due to the crucial roles played by the environment in promoting the use of library resources by the undergraduates. This result corroborates the study of Onwueme and Lulu-Pokubo (2017) which identified lack of awareness, unfriendly user interface, poor internet connectivity, poor power supply, lack of search skills,

non-availability of the facilities to access the EIRs and lack of training as constraints to the use of EIRs among academic staff at Port Harcourt Polytechnic's library. Owolabi, Idowu, Okocha and Ogundare (2016) identified many challenges to the use of EIRs among the undergraduates University of Ibadan to include uncooperative staff to facilitate easy access, epileptic power supply, poor internet network, limited access to computer terminals, lack of IT knowledge to effectively use the services, distraction from other work, time consuming and wasting. Tariq and Zia (2014) who reported that sluggish network connection, erratic power supply, spyware and viruses, subscription issues, time wastage, licensing issue, etcetera, were identified as hindrances to the use of EIRs among students of Karachi University in Pakistan.

Quadri, Adetimirin and Idowu (2014) also echoed that poor internet connection, lack of relevant EIRs, power failure, difficulty to access, costly access and absence of assistance from library staff, technical constraints, lack of ICT skill were some of the challenges encountered by the students in the EIRs usage. Sejane (2017) indicated that challenges like budget cuts, low internet bandwidth, lack of up-to-date information technology infrastructure, inadequate searching skills, shortage of staff as well as high cost of subscription fees constituted threats to access and use EIRs in the institution's libraries. Habiba and Chowdhury (2012) who reported that limited access to computers, limited number of titles available, difficulty in locating relevant information, slow downloads as well as poor remote access were the highlighted problems faced by the students in the use of EIRs. Issah (2010), Gwazah (2011) and Egberongbe (2011) identified factors obstructing the use of e-resources in the Nigerian higher institutions as lack of strategic planning, lack of or inadequacy of reliable funding, lack of Internet use to provide information services to users and lack of consistent training for users in new ICT services. Others include lack of information retrieval skills for exploiting electronic information resources, slow Internet access and lack of constant power supply.

Summary of the findings

1. There was a low level of accessibility to EIRs by undergraduates in the federal universities in North-Central Nigeria
2. Unavailability of EIRs, inadequate EIRs, lack of relevance of available EIRs to respondents' needs and frequent downtime of the Internet server were found to be the basic impediments to the use of EIRs by undergraduates in federal universities in the North-Central, Nigeria.

Conclusion

Electronic resources (EIRs) have emerged as one of the most powerful formats that provide access to unlimited information for different categories of students. With the positive relationship between accessibility and utilization of EIRs, it could be inferred that undergraduates will be able to maximally use these learning resources, if necessary facilities are made available to promote the rate of access. In the same vein, institutions are expected to organize capacity building to improve ICT skills of the undergraduates, with a view to promoting the use of EIRs for educational purposes.

Apparently, it had been observed that all these could be achieved in a conducive environment that removes restrictions to effective utilization of these learning resources among undergraduates. These independent variables have been found to have significant relationship with the extent of utilization of EIRs by the undergraduates and management of institutions needs to consider these factors in the

planning and implementation of EIRs. This will adequately guide decision-making among stakeholders in the library system and the university management as a whole.

Recommendations

The following recommendations are made, based on the findings from the study:

1. Managements of the federal universities should advance strategies to increase the provision of relevant electronic information resources, level of accessibility to EIRs and provide conducive environmental factors that will ensure regular and effective use of EIRs by undergraduates with a view to supporting their academic and research endeavours.
2. Moreover, the Federal Government, through its regulatory agency such as National universities commission should provide adequate funding, policies and qualified personnel that will revise, improve and modify the core mission of university education and put in place a campus network which would allow undergraduates to have access to the Internet and to use such as EIRs access.

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