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Electronic Information Resources Usage and Challenges for Academic Purpose: A Systematic Literature Review 2011-2021

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Abstract

The study's purpose is to give an up-to-date estimate of global electronic information resource utilization and problems for academic purposes from 2011 to 2021.To investigate global literatures on electronic information resources, the researcher conducted a comprehensive literature study (EIR). This analysis used 31 literatures that met stated basic conditions among 62 empirical studies on EIR published between 2011 and 2021. The results of the investigation were documented and analysed through theme analysis. The findings reveal numerous specific electronic information resources (EIR) tools such as e-books, e-journal, e-newspaper, e-zines, e-thesis, e-clipping, e-patents, e-standards, e-conference proceedings, e-databases, e-technical reports, e-dissertations, CD-ROM, full text database, reference database, statistical database, image collection, indexing and abstracting databases among others. Only empirical study literatures focused on EIR between 2011 and 2021 were used in this article. However, this study did not include any resources that were not electronic

Keywords: E-resources, Academia, Usage impact, University, Researchers, Libraries

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INTRODUCTION

The notion of electronic information resources (EIR) was introduced with the emergence of Information Communication Technology (ICT) in the twenty-first century, which has further enlarged the scope of library information resources. The kind of electronic information resources that university libraries might be able to obtain are determined by the patrons' needs, as well as the cost and complexity of the contents. E-books, e-journals, e-Newspapers, e-zines, databases, full text database, reference database, statistical database, image collection, multimedia products, e-thesis, e-clipping, e-Patents and e-standards, indexing, and abstracting are among the sorts of EIR found in libraries, according to (Kenchakkanavar, 2014). Electronic information resources, according to (Asha and Rani 2015), include e-books, CD-ROMs, e-conference proceedings, e-databases, e-technical reports, e-theses and e-dissertations, and academic databases to name a few, all of which require information literacy skills to allow library users to make adequate use of EIR.

Furthermore, (Khan, 2016) claims that hundreds of thousands of monographic materials, journals, learning resources, and databases, among other things, are now available in electronic formats, and that these materials

can be accessed from all corners of a country, thereby increasing the use of information, literature, and information systems efficiency. University library users are more independent than ever before, as they no longer need to physically visit the library to obtain information resources that may fit their needs. With the advent of ICT, users can now use their libraries' Electronic Information Resources (EIR) at their leisure from their dormitories, offices, and homes.

Electronic information resources are those materials that require computer access, whether through a personal computer, mainframe, or handheld devices accessed remotely over the internet or locally, according to the International Federation of Library Associations (IFLA, 2012).Similarly, (Mansur, 2012). Electronic resources are on-demand information sources in an electronic format. Researchers, students, and other library users can access the information at any time to satisfy their needs. Any information source that the library offers access to in an electronic format is referred to as an electronic information resource. Electronic information resources, often known as e-resources, are becoming more widely accepted, particularly in academic settings such as universities, colleges of education, and polytechnics. Because of the high acceptability rate, university libraries have purchased a large number of Electronic Information Resources (EIR) to supplement their print collections. Electronic resources, sometimes known as e-resources, are digital information that may be accessed via the Internet. University libraries should develop electronic resources that are relevant to their consumers in order to attract library users and provide effective information delivery.

Statement of the Problem

University libraries in Nigeria currently provide materials in electronic formats as a result of the present development in Information and Communication Technologies (ICT). Universities have invested heavily in Electronic Information Resources (EIR) and other computer-based technologies to provide services so that undergraduate students can gain access to information that will enhance their scholarly research work. Despite the positive reports on EIR used for academic purposes has been scarce in literature. Therefore, the understanding of the current literatures on EIR usage and challenges for academic purposes worldwide is highly relevant during the current pandemic era. This consciousness could influence students and academics positively as they might decide to adopt EIR to advance academic programmes.

Objectives of the Study

The purpose of this research is to look into the usage of electronic information resources for academic purposes, as well as the tools that are used and the influence that EIR has on students.

Significance of the Study

Some of the current approaches of controlling the cost, time, and easy access to information include the growth of EIR and its integration for learning purposes among students of higher education. As a result, it's critical to look at empirical literature results on EIR usage for academic purposes. This research will expose this information as well as provide a more comprehensive understanding of EIR usage and problems. It can also be taken into account while making decisions about EIR and online learning programs during pandemic or other comparable situations.

Scope and Delimitation of the Study

The research is limited to relevant literature on the usage and problems of EIR in academic settings around the world. The review will be time-limited, as only literatures produced between 2011 and 2021 will be examined, and there will be no regional or other restrictions.

METHODOLOGY

This research was carried out by viewing through literatures that looked at the usage of electronic information resources and obstacles for academic purposes around the world. Articles were included if they addressed the use and problems of electronic information resources for academic purposes, while those that concentrated on the use of electronic information resources for advertising or social networking were excluded. Editorials, articles that were not peer-reviewed, and commentaries were also excluded from the study. For this investigation, a broad search technique on peer-reviewed papers was done in January 2021. Three primary themes were incorporated in the search method to focus on the tittle electronic information resources usage and challenges for academic purposes: e-resources use relevance, challenges, and educational aims. The search involved typing “e-resources use”, “challenges,” “impact” and “academic purpose” separately in Google scholar. In Google scholar, I typed “e-resources use,” “challenges,” “impact,” and “academic purpose” separately. The searches returned 9,700 publications from 2011 to 2021, of which 69 were

retrieved and analysed, and 36 fulfilled the study's inclusion criteria.

Review of Literature on Electronic Information Resources Use

(Olatoye & Muchaonyerwa, 2020) investigated the factors that influence undergraduate students' attitudes and perceptions of using electronic information resources (EIR) in selected universities in the Eastern Cape, South Africa. The study's major goal was to look into the attitudes and perceptions of undergraduate students at the University of Fort Hare and Rhodes about using electronic information resources. The goal was to see if their attitudes and perceptions have a good or negative impact on e-resource use in a few colleges in South Africa's Eastern Cape. The study population and sample size were chosen using purposive and proportionate stratified random sampling techniques, and data was collected using a questionnaire and an oral interview. The findings revealed that respondents frequently face challenges that have a negative impact on their attitudes and behaviour when using e-resources. They believe that further unique computing abilities are required before someone can be proficient enough to use these resources successfully. In order to conduct this study, 377 copies of the questionnaire were randomly distributed to undergraduate students from both schools' faculties, and the findings were analysed using the Statistical Package for the Social Sciences (SPSSVersion 32). Additionally, assumptions were examined in order to make valid claims based on the acquired data, and the results show that undergraduate students' perspective and attitude influence their use of E-journals. Recommendations were made, including the necessity for a widespread education campaign on the usage and benefits of E-resources among undergraduates' students through training and re-training, seminars, and workshops.

(Sahabi et al., 2020) investigates the use of electronic information resources by Ahmadu Bello University library students in Nigeria. The study looked at how undergraduates in the Ahmadu Bello University Library in Zaria used electronic information resources. The study used a survey design with a study population of 4,189 undergraduate students who registered with the university libraries between the 2017 and 2019 academic sessions at Ahmadu Bello University, Zaria (Students' registration records are available in the university library's reader's services section), from which a sample of 838 respondents based on Wimmer and Dominick's formula. Using a basic random procedure, the researcher judged 20% of the study population appropriate from each library unit. SPSS software, frequency distribution, and percentages were used to analyze the data. According to the statistics, the majority of Ahmadu Bello University Library, Zaria undergraduates employed electronic information resources for research and academic objectives.

(Ansari, 2020) studies use and awareness of e-resources among research scholars of literature subjects in Banaras Hindu University. The findings shows that 100% (N=82) respondents opted that e-resources are available online, 63.41 (N=52) respondents think they give innovative ways of searching according to the need of information, 63.41% (N=52) respondents said they provide multiple access, 48.78 (N=40) respondents think they provide bibliographic data, abstract and full text. There are some respondents also who were confused about the feature of e-resource. The figure shows 17.07% (N=14) respondents think they allow sequential reading only, 7.32% (N=6) said they are available in printed form and 4.88% (N=4) said the articles could be photocopied. The figure indicated that a proper orientation about using e-resources is needed to increase the usability of e-resources among research scholars of literature disciplines. It also revealed that e-resources provide the facility to use it anytime and anywhere according to the convenience of the users. It is beneficial to utilize free and leisure time. There are many advantages of e-resources and some of them are listed below. The respondents were allowed to choose their favourite advantages of using e-resources and data is presented in figure 6. The majority of respondents 92.68% (N=76) like its convenience, 59.76% (N=49) feel its effective and fast communication, 68.29% (N=56) like its time and space-saving, 58.54% (N=48) like its searching and browsing facilities, 70.73 (N=58) like its cross-reference linking and 87.80% (N=72) likes because it can be used on mobile among others.

The use of electronic information resources by students at higher institutions in Taraba State, Nigeria (Abubakar and Mamman, 2020). The use of electronic information resources by students at tertiary institutions in Taraba State, Nigeria, was investigated in this study.The study's particular aims were to determine the types of electronic information resources (EIR) accessible at tertiary institutions, the extent of use of those resources, and the satisfaction received from using those resources in the universities. The study used a quantitative research method using a cross-sectional survey methodology. The study's population consisted of three higher education institutions having accessible and functional electronic information resources, namely: With 10748 registered users, Taraba State University, Federal University, Wukari, and Taraba State College of Nursing and Midwifery made up the population, while 370 people were chosen at random from the libraries. The sample size for the study was calculated using the Research Advisor table from 2006.The data gathering instrument was a questionnaire. Statistical Package for Social Sciences

(SPSS) version 16.0 was used to evaluate the data obtained, which included descriptive and inferential statistics. The findings revealed that the tertiary institutions under investigation had a variety of electronic information resources, E-books, e-journals, e-mails, online databases, and CD-ROMs are just a few examples. The degree of use of the available EIRs was likewise discovered to be moderate, and the majority of users were satisfied with the EIRs offered in their institution libraries. The study also discovered a statistically significant link between electronic information resource accessibility and consumption in the assessed institutions: x2 (10, N=327) =12.447,

(Sahabi and Omagbon, 2020) investigates undergraduates' information literacy skills and usage of electronic information resources in Nigerian university libraries: a review of the literature from 2015 to 2019. The research looked at the literature on information literacy abilities and the use of electronic information resources by undergraduates in Nigerian university libraries. In University Libraries in Nigeria, a review was conducted to examine undergraduates' information literacy skills and use of electronic information resources. A total of 50 pieces of literature were examined. The findings show that knowledge and abilities in the use of e-library resources have a significant impact on the quality and quantity of academic work. As a result, students in tertiary institutions must improve their information literacy skills.

(Manjack et al., 2019) investigated electronic information resources in Gombe State, Nigeria, with a focus on university libraries. The primary goal of the research was to look into how undergraduate students in Gombe State, Nigeria, used electronic information resources in university libraries. The study was guided by three (3) research questions and a single hypothesis. The study employed a cross-sectional survey research approach. The survey included 2,970 undergraduate students who had registered with the library. Using a basic random selection procedure, a sample of 297 people was chosen. The questionnaire was the most important tool used. For the research questions, mean and standard deviation were used, and for the null hypotheses, a t-test was used. The results revealed that all of the study's electronic information resources are available, with electronic books receiving the most answers. It was also discovered that institutional repositories were the most frequently used electronic information sources. According to the findings, there is no significant difference in the use of EIR by undergraduate students.

(Maxwell and Budu, 2019) looked at how students at a top Ghanaian postgraduate theological university used technological resources. By using the survey study design, 33 postgraduate students were randomly selected to receive copies of the questionnaire. The data was primarily displayed as frequency and percentage distributions in Microsoft Excel 2013.The study's findings revealed high levels of awareness, appropriate computer abilities, derivation of various benefits, and usage of e-resources for academic reasons, as well as most respondents' inadequate search skills due to a lack of training. Access issues, search and retrieval issues, and staff-related issues were all barriers to e-resource use.

They investigated the usage of electronic resources by postgraduate students at the University of Cape Coast (Ankrah and Atuase, 2018). The study employed a cross-sectional survey design. A total of 275 students were surveyed, accounting for 30% of UCC's 915 postgraduate students. The selecting approach followed the lottery method. For uniformity, data from the completed questionnaire was altered. To enter the results from the questionnaire into the computer and analyse quantitative data, a coding manual was first created. Tables and charts were utilized in conjunction with quantitative analysis, which included frequencies and percentages. Insufficient search skills, a lack of instruction on how to utilize e-resources, and an inadequate computer at the library are among the obstacles affecting the usage of e-resources, according to the study's findings.

(Ankrah and Acheampong, 2017) look into students' awareness of electronic resources available at the University of Professional Studies Accra (UPSA), their use of these resources, the problems they experience, and the relationship between students' computer literacy skills and resource use. The data demonstrated that UPSA students are fairly knowledgeable about electronic resources, that they frequently utilize electronic resources to do research and complete projects, and that their usage of the resources outnumbers their use of print papers by a significant margin. The utilization of technological resources and reading skills were found to be directly connected using the Chi-square test. The main problems to using the library's electronic resources that were observed and reported were overcrowding of the library's electronic resources area by students due to an insufficient number of computers, and insufficient skills and training to use the resources.

(Mwantimwa and Elia, 2017) conducted research into the use of electronic information resources in Tanzanian universities. The study used a mixed methods research strategy to gather, process, and analyse data, as well as discuss the findings. In total, 119 academics and researchers took part in the research. The data was analysed using SPSS and STATA. The core findings indicate that most academic staff and researchers are aware of, have access to, and use e-resources to support teaching and research. Slow internet connectivity, inability to access full-text articles, unreliable power supply, and inaccessibility of e-resources outside university premises due to IP address limitations, inadequate ICT infrastructure, and insufficient skills and

knowledge are among the challenges and problems that prevent effective use of e-resources. The study discovered that in order to improve the quality of teaching and research, online technologies should be used to increase the use of e-resources.

Challenges of E-Resources Use

Electronic information resources: An overview of challenges faced by faculty members (Saddiqa and Hussain, 2021) is a study conducted by (Saddiqa and Hussain, 2021). The purpose of this study is to look into the difficulties that respondents confront when using electronic information resources. The study's particular aims were to look at the demographic data, investigate the problems that faculty members were having, and see if there was a difference in opinion between male and female faculty members when it came to issues with electronic information resources. The structured questionnaire was utilized to collect data from the respondents, and the survey research method was applied. From a total population of 661 faculty members, 340 were chosen using the stratified sampling technique. The data was analysed with SPSS version 22 (Statistical Package for Social Sciences), and descriptive and inferential statistics were used to achieve the results. The data was gathered from the four faculties of the examined universities, with the social sciences faculty accounting for the majority of respondents (34.4%). The lecture accounted for the vast majority of the sample, with male responses outnumbering female respondents. Low internet speed, poor IT infrastructure, absence of internet, non-availability of full-text access to most e-journals, lack of understanding of e-resources, lack of collaboration of library and computer lab staff, and lack of printing facility were the key issues noted by faculty members.

(Nesba and Mac-Anthony, 2021) investigates the many barriers that students face in accessing electronic resources at a Ghanaian public university library. The study's major goal is to determine the various hurdles or limits that student's face when accessing electronic resources depending on their demographic and contextual characteristics. A descriptive survey design was used, and structured questionnaires were randomly distributed to 558 students from the university of Cape Coast's four constituent colleges. Data was collected, analysed, and descriptive statistics were generated using SPSS. Students faced six key challenges in accessing electronic information resources in the library, including delays in downloading information, poor internet connectivity, and limited accessibility of the university portal, insufficient computers in the library, poor lighting, and limited ancillary services (on-the-spot printing facilities), with differences based on gender, academic level, and other factors. Only 24% of males and 26% of females reported no difficulties or problems with electronic information download delays. Approximately three-quarters of all users reported bad internet connectivity and inadequate machines while accessing electronic materials. In the Colleges of Education Studies, Agriculture and Natural Sciences, and Humanities and Legal Studies, 40 percent of undergraduate students faced four to six obstacles at the same time. Across all four universities, first-year undergraduate students were the least likely to report several obstacles, regardless of gender. To address the stated difficulties, this implies the necessity for focused and context-specific solutions.

(Okogwu, 2019) looked on the challenges of postgraduate library users in university libraries in South East Nigeria accessing electronic resources. The study analyses the challenges faced by postgraduate library users at university libraries in South East Nigeria in accessing electronic resources. The survey discovered seven challenges faced by postgraduate library users while using e-resources in university libraries, with mean scores ranging from 2.78 to 3.18, all of which are higher than the 2.50 cut-off mark on a 4-point rating scale. The lack of continuous access to electronic resources (mean = 3.18) is placed first in the overall mean, while e-resources are too complicated to use (Mean = 2.78) is ranked lowest as difficulties experienced in using the library's electronic resources.

(Premarathne, 2017) conducted research at the University of Peradeniya on the usage of electronic information resources by arts undergraduates during the preparation of final year dissertations. The primary issues linked with non-use of EIR, according to the report, are a lack of skills in information searching, relatively limited training possibilities, and limited Internet access facilities. The impact of the Internet on collaborative and independent learning has been the subject of several studies. Opportunities for lifelong learning made available by the Internet have also been highlighted. Several academic institutions are currently offering a variety of online courses aimed at various parts of society.

(Ugwu and Orsu, 2017) looked into the difficulties that undergraduate students have when using online information resources. This investigation was conducted using a qualitative research method. The participants in the study were first-year students in their third year of study. Basic library, research, and information skills should have been acquired by these pupils. The data was collected from the participants via a questionnaire. The frequency or percentages for the pertinent codes that comprised the themes were determined using descriptive statistics. The findings revealed that lack of browsing skills, low internet bandwidth, and insufficient ICT infrastructure are the most significant direct factors underlying students' challenges with online information use, while indirect factors include lack of internet access

at home, absence of online assignments, lack of motivation to use online information, and the majority of students not using online information.

CONCLUSION

Clearly, the use of EIR by students is a critical issue in the academic world. Personal values for electronic resources, which are in turn based on personality variables, time factors, and facilities considerations, are considered as having a substantial impact on students' academics. If electronic resources are used for scholarly objectives, they will almost certainly produce positive results, whereas if they are used for pleasure, they will almost certainly produce negative results. Despite the fact that there appears to be an increasing number of research publications on the use of electronic resources by students in higher education for academic purposes, primary research on the effects of e-resources on student use and education is scarce. On a variety of levels, the few articles included in this review demonstrate potential in students' usage of electronic information resources for academic purposes. If we need continuous positive return measures to counter the technology challenges for maximization of its potentials, and advocate for positive purpose with the use of electronic e-resources among students, we may need to come to terms with the idea that e-resources have challenges that can also affect academic output. Academics must realize the goal that lies ahead with the use of electronic information resources, and expect beneficial academic output in some way, as well as be able to discover opportunities that can lead us there. E-resources technology, on the other hand, has the potential to improve academic engagement, information exchange, and community building.

E-resources have been widely and quickly accepted in academic domains, and academic universities have repeatedly said that they can effectively use and access electronic resources despite several challenges. Some academics sought training to help them use electronic resources more effectively, while others learnt by trial and error. The majority of university professors have claimed to be computer literate. Among the many electronic resources accessible, e-journals are the most widely used. In terms of e-resources utilized by academics in universities, the Web, e-mail, and search engines rank below e-journals. Academics use databases and electronic journals for a variety of purposes, including teaching and research. Academics have expressed pleasure with their usage of electronic resources and expressed a desire to continue using them since they help them do better research and improve scholarly communication. As the future unfolds and restrictions to their usage are removed, e-resources will continue to gain popularity among academics.

DISCUSSION

The introduction of e-resources sparked a lot of curiosity among pupils. Based on the findings of the examined literatures, EIR has benefited students and scholars by offering a platform that fosters communication and lifelong learning, as well as ease of access to knowledge and open education, e-learning materials, e-library, and knowledge for enjoyment. Teachers who convey information to students also profit from the usage of e-resources, according to this study, because they frequently share academic resources, discuss viewpoints, follow each other's research, keep up with current research trends, and expand their professional networks. The literatures on the usage of e-resources for academic purposes that were reviewed for this study provided a discovery path. Despite the problems mentioned, such as user awareness, Internet issues, technology obsolescence, copyright issues, maintenance culture, inconsistent power supply, and insufficient funds, the study discovered numerous positive effects of EIR use for academic purposes. Other barriers to using e-resources have been found, such as insufficient training and on-the-job retraining.

RECOMMENDATIONS

Meanwhile, e-resources have been shown to improve academic performance in higher education among students of all levels. As a result, it is critical that academic administrators or librarians aim to strategically hand-pick the most important EIR that will improve teaching, learning, research, and recognized e-resources use difficulties and improve for good returns.

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