AWARENESS AND USE OF ISLAMIC RESEARCH INDEX (IRI) DATABASE BY THE ISLAMIC SCHOLARS UNIVERSITY OF THE PUNJAB

Fayyaz Hussain
Sheikh Zayed Islamic Centre, University of the Punjab, Lahore.

Abstract: The Islamic Research Index (IRI) database is a combined initiative of Higher Education Commission and Allama Iqbal Open University since 2016. IRI database provides free access to 65 full text journals including almost 11 thousand peer reviewed articles of Islamic Studies. More than 23 million users from all over the world have taken advantage from IRI. The aim of this study is to measure the awareness and use of IRI database among the Islamic Scholars, University of the Punjab, Pakistan. A quantitative survey was used for this study. A total of 381 Islamic Scholars in University of the Punjab were the population. The response rate was 95%,362 questionnaires were recorded and analyzed. Findings of the study showed that most of the scholars 305 (84.25%) are aware of IRI. The regular users of IRI are 158 (43.64%). They are using this database for downloading articles, for assignment and seeking information. Most of them 251 (69.33%) are satisfied from its utility. It is also seen that all scholars are using some kind of databases. Slow response of website, similar key words for different type of articles and different key words for similar articles, complex presentation of interface are the main problem faced by the participants. It is suggested by the participants that IRI database needs to develop a regular marketing strategy, arrange lectures and trainings for its better use. This is the first study of its kind in Islamic Studies domain. Hopefully it will be a useful source for learning and decision making. The research will be unique as an addition in literature of this research area.
Keywords: Islamic Research Index; Islamic Studies; online resources; electronic resources

Introduction

Man has been constantly engaged, to discover best approaches for getting information. With the passage of time, it has moved from papyrus to paper, and paper to computerized structure. Data in electronic structure has changed the human thinking. As the Information Communication Technologies (ICT)revolutionized the world, the sources of information have also changed. Generally, when we discuss information sources, it is the e-sources.

Information innovation in the ongoing years has significantly exaggerated the types of information. In the contemporary information based society, the researcher community has been demanding relevant and efficient information. Easy accessibility and faster communication has changed the environment from printed to electronic sources. Researchers currently have their information needs met by various strategies. They want to get information at home, workplace and other remote areas. These sources empowers the researchers to teach, research and find new information. These databases give current information with simplicity.

The development in ICT presented new ways to handling and dissemination of information in virtual environment. The ICT helps information clients to look, access and utilize information at any time, situation, area, and language. In this way, ICT has brought information at the fingertips of researchers. The available information is useless to the users unless they know the means to get the required information from the sources. The position of e-information resources for academia and scholars has been globally recognized. The value of any information source can be evaluated through its effective consumption by the users.

Higher Education Commission of Pakistan

The Higher Education Commission (HEC), is an independent body regulating and accrediting the universities in Pakistan. It was established in 1947 right after the birth of Pakistan with the name of University Grants Commission (UGC) of Pakistan and was revised in its modern shape from 2002. The HEC works as a facilitator in the development of higher education system and upgradation of the universities. HEC National Digital Library (NDL) program was primarily came into being in 2004. Since then this program is in advancement to provide access to researchers, scholarly literature through online delivery, of peer-reviewed articles across a wide variety of disciplines. A large number of digital objects have been made accessible through the Digital Library Program.HEC has making persistent efforts to raise the quality of research journals since 2005. After fulfilling the certain criteria, research journals get accreditation.

Allama Iqbal Open University

Allama Iqbal Open University (AIOU) was established in 1974, with the purpose of to provide educational occasions to common people and to those who cannot leave their homes and works. It has unlocked the educational prospects for the people and has provided access on their door steps.

Islamic Research Index

The most prominent way for distributing current knowledge to the audience is journal. Now a days it is necessary for a research journal to be listed in a concerned online search system for proper recognition in the academic world. In the current electronic age, many online abstracting and indexing services have been started almost in every major academic area. Unfortunately for the journals of Urdu and Arabic languages, there is no satisfactory availability of abstracting and indexing service, even in originating countries of these languages.

To overcome this weakness, HEC Pakistan and Allama Iqbal Open University jointly took an initiative in 2016 in the form of Islamic Research Index. This database is serving the people of Islamic Studies not only in Pakistan but over the globe through its open access feature.

Islamic Research Index provides abstracting indexing and full text availability to the peer reviewed online journals published in the discipline of Islamic Studies specifically in Urdu and Arabic Languages in Pakistan. About 65journals which fulfill the required criteria of recognition by HEC of Pakistan have been indexed in IRI since 2016. Abig number of11189full text articles are available so far. From the inception of IRI almost three million (2976499) users from all over the world have taken advantage from this database.

Significance of the Study

Awareness about anything, which be present, can be measured on its information and experience basis. Awareness and its way of use about online resources is very important, as well as to keep scholars alert, about available media by which they can get their needed information. Many studies were conducted to measure the awareness and use of different databases worldwide. A very little contribution has been seen in the literature from Pakistan in this area. As far as the IRI database is concerned, no study is being conducted so far. This study will bridge this research gap and measure the awareness and use of IRI provided by the AIOU and HEC for the researchers. It is also vital to recognize the purpose of using online resources by scholars of Islamic Studies, University of the Punjab. Thus to find the weakness and strengths of IRI, author felt to conduct a survey study.

Objective of the Study

1. To identify the awareness of researchers about IRI database

2. To determine the purpose of using IRI database
3. To judge the frequency of use of IRI database
4. To find out the satisfaction level of the researchers concerning IRI database
5. To identify the difficulties faced by researchers in the use of IRI database

Literature Review

Information Technology has entered in all walks of life and its use is for improved service and gratifying diverse human needs. Physical libraries have been changed as electronic and virtual libraries, where digital media has replaced hard books, journals and magazines. This digital era has improved the distribution of information globally. Online sources can be accessible in remote areas easily. Digital sources are very much attractive and becoming important for the research community. University scholars are potential population which rely on updated, timely and relevant information. A huge number of empirical studies have been piloted on the awareness and use of digital resources so far. An effort has been made to review the related literature on the topic; which offers an understandable picture of the topic under study for analysis.

(Liew, Foo and Chennupati 2000) conducted a study in Singapore as "a study of graduate end users,their use and perception of electronic journals." This study reveals that the progress and variety of e-journals in the recent years led to a new paradigm of widespread scholarship. This study concluded, the respondents perceived that scholarly journals will be e-journals in future. Online journals are considerably different from print journalsdueto its innovative forms ofaccessibility, which is not possible in their printed counterparts.

(Morse &Clintworth 2000)conducted a study in California to "compare patterns of electronic journals use in academic health science library". This study indicates that researcher have read the online versions more than ten times as compare to print. The results of the study established the inspiring fondness of users for e-versions, when these are available to them, especially onfull text availability.

(Tenopir and Read 2000) conducted a study in United States and Canada as "Patterns of Database Use in Academic Libraries." This study reveals that the users incline to use commercial databases most regularly and comparatively some of users preferred open access research databases.

(Heterick 2002) indicated that 60 percent of faculty members were comfortably used online resources. These participants considered that diversity of online resources is very much important for research, and believe thatonline databases are valuable. Mostly 62 percent participants assume that in the near future they will become dependent on these databases.

(Sathe, Grady, and Giuse 2002) conducted a study at "Biomedical Library of USA as print versus electronic journals: a preliminary investigation into the effect of journal format on research process." Its outcomes indicated that students, researcher favored electronic journals while faculty chosen printed journals. Printed journals were used for reading articles and perusing contents while online journals are used to publish monographs and checking references. Study further added that electronic journals are much easy to reach than print journals, however print journals have better in text quality and tables.

(Bar-llan, Peritz, and Wolman 2003)conducted a study under the title "a survey on the use of electronic databases and electronic journals accessed through the web by the academic staff of Israeli Universities." This study investigated that most 69.2 percent respondents were using databases and online journals for both teaching and research purposes, while the other 30.8 percent used exclusively for research. This study further added that disciplines have a great impact on usage preferences, academic faculty in sciences have a habit of use more extensively e-resources than in academic faculty of humanities and social sciences. Age performs a significant role in usage of online resources; the younger faculty members and students more intensively used online sources.

(Tenopir, Carol 2003) conducted a study under the title "use and users of electronic library resources: An overview."This study analyzed over 200 studies about the use of online resources published during the year 1995 to 2003. The findings of this review are, the online resources have been speedily accepted in academic circles, while the behavior differs according to the discipline.

(Ibrahim 2004) conducted a study under title "use and user perception of electronic resources in United Arab Emirates University." This study reported a survey of faculty members about their frequency of use of online resources was low. Indicated reasons were, lack of time because most of the time consumed on teaching, lack of awareness about online resources, ineffective means of communication, and language barrier.

(Manda 2005) studied "the use of electronic resources in Tanzania." this study highlighted the challenges as insufficient user trainings, poor search skills, low web connectivity and limited access to computers.

(Yusoff2006) presented a paper in conference under title "the use of electronic information resources among the users of Penang public library corporation, Malaysia."The findings discovered that electronic information resource services provided by PPLC are used commonly by the users. It was found that the group of Younger depend more on electronic journals and online databases.

(Borrego, et al. 2007) conducted a study under title "use and users of electronic journals at Catalan universities: the results of a survey." This study identified that there are several readings about users of online resources in the literature from last few years. The results of this study discussed that a high proportion of academic and research staff are well aware of electronic resources and an increasing trend seems for the online format. The collection of e-resources is highly treasured and users anticipate to escalate their use in coming years.

(Warraich and Ameen2008) conduct a multimethod study to investigate the "perceptions of LIS professionals regarding use of Pakistan National Digital Library database."The findings sum up as participants showed more importance in database usage. Most of them accessed these databases through the HEC website. The participants were more pleased with online journals and were least satisfied with e-books. It was explored that HEC National Digital Library resources are underused. HEC National Digital Library needs to design a promotional strategy and a feedback system.

(Sharma 2009)conducted a study under the title "Use and impact of e-resources at Guru Gobind Singh Indraprastha University (India): A case study."The study highlighted the preferences of electronic resources among the research scholars and teachers. The results reported that the highest preference in terms of e-resources usage ise-journals with 76.66 percent. Study further added that training programs should also be offered while the availability of online resources is sufficient. The problem diagnosed that the infrastructure to use resources is not suitable and create problems to meet the requirements.

(Yusliza, et al. 2009) in Malaysia conducted a study to examine the "use of e-library among students in a public university", narrated that, computer skills and knowledge about information searching had a significant positive effect on use. This study further indicated that students were on the view that e-library was easy to use and they will be keener to use and improve the quality of their research projects.

(Ansari and Zuberi 2010) conducted a study under the title "use of electronic resources among academics at the University of Karachi." This study explored that a majority of academics have computer skills which facilitates the use of electronic resources, although some have little awareness of e-resources, which is not good sign. E-resources are used for research and for preparation of lectures. Almost all respondents were satisfied with available resources. This study further added that e-resources are the best way of getting recent and present day information. Faculty used these e-resources, but due to some hurdles like networking problems and lack of training, these resources are under used. This study reports that nearly one-third of

participants use e-resource for research purpose and likely one-quarter used it to prepare class lectures and gaining subject relevant information.

(Omotayo2010) conducted a study under title "access, use and attitudes of academics towards electronic journals: a case study of ObafemiAwolowo University."This study reported that respondents used electronic journals daily, weekly, monthly, bi-monthly and occasionally. Study further showed that electronic journals were the most esteemed information communication way for research scholars. Printed books may survive for a long time, but e-journals are replacing printed journals rapidly. It was significant in the study that electronic journals play a vital role in scientific communication.

(Tyagi2011) conducted a survey under the title "scientist's perception of use of electronic information resources: a case study of Harmacopoeial Laboratory, India." This study reveals that students were gradually switching from printed to electronic resources in fulfilling their information needs. Although they are using e-resources preferably but they think that printed materials are still basic elements.

(Mirza and Mahmood 2012) conducted a study on "electronic resources and services in Pakistani University libraries: A survey of user's satisfaction." The study overall concludes that Pakistani university libraries are providing effective electronic resources and services to the library clients. The satisfaction level of both side users from public and private sector varies significantly. The respondents like the idea of introducing information literacy program related to electronic resources and services. The challenges faced by the respondents reveals that there is dire need to market these electronic resources and services, they also suffering from insufficient IT infrastructure, and a lack of ICT skills.

(Murugesan and Pandian2012) conducted a study under the title "use of digital library resources by the engineering college students: A survey." This study revealedthat a considerable number of participants used digital resources and their purpose of use was academic nature. The study further described that 93 percent participants were much satisfied with digital resources because of time saving, updated and easy in use.

(Thanuskodi2012) conducted a study under the title "use of e-resources by the students and researchers of faculty of arts, Annamalai University."It was found that large number of respondents were very much responsive of the available e-resources. The study indicated 47.78 percent respondents were willing to use only electronic resources. A large amount of respondents 76.66 percent usedonline resources for their research papers.

(Amjad, Ahmed and Naeem2013) conducted a study under the title "use of electronic resources among research scholars in the Islamia University of Bahawalpur, Pakistan." This study aimed to examine the use and satisfaction level of researchers with electronic resources in their research

output and also explored the difficulties faced in accessing these resources. The results of this study showed 100 percent satisfaction level from the respondents in the use of e-resources. MPhil and PhD scholars were the main users of these resources. The challenges they faced were slow internet connectivity and difficult interface design.

(Gakibayo, Odongo and Obura2013) conducted a study in Uganda under the title "electronic information resources utilization by students in Mbarara university library." Population was two hundred and sixty six. Data was collected by both quantitative and qualitative methods. The study indicated that use of e-resources was not only effected by lack of information literacy skills but also slow internet service. The frequency of use of e-resources indicated that there was a need to take some measures for better use.

(Ahamed and Syamala2014) conducted a study under the title "use of electronic resources in selected engineering college libraries of Chitoor District." This study concluded that 54.89 percent respondents make use of online journals and most of students were satisfied with e-journals, only 17.91 percent participants were not satisfied with the e-journals. The study highlighted the challenges faced by the students were no proper guidance, slow internet speed.

(Kwadzo2015) conducted a study under the title "awareness and usage of electronic databases by geography and resources development information studies graduate students in the University of Ghana." This study revealed that 96.9 percent students were already aware of online databases. Mostly participants 87.5 percent were used and satisfied with the available online databases. They felt comfort and ease to access electronic databases.

(Gupta and Sharma 2016) conducted a study under the title "satisfaction in use of digital information resources among the students." This investigation reveals that most of respondents 97.5 percent were well aware of e-journals and e-books. Their primary purpose of using this information was to search for the literature and other study material.

(Yebowaah and Pllockey2017) in their article on "awareness and use of electronic resources."It was observed that majority of respondents about 65 percent were aware of e-resources. The password problem and low internet speed were the major challenges faced by the respondents.

(Haque and Hoq2018) in Bangladesh conducted a study under the title "student's perception of electronic resources uses in Rajshahi University library: A case study." This study revealed that information searchers, specially students and teachers were key followers of e-resources. It was found that e-resources as a study tool was most favorite among the students who participated in the survey. Almost 90 percent of the participants considered that e-resources were really helpful for their studies.

(Hussaini, Vashistha and Jimah2018) presented a research paper in conference, the task behind this paper was to measure the "awareness and utilization library resources by library users of NIMS Central Library, Jaipur India." It was concluded that for the significant effective use of the library for teaching, learning and research, the academic institution should provide updated library resources as per the need of the library users. It was recommended that the university should start information literacy to teach users how to properly use the databases. This will enhance the awareness about the resources.

(Sahu and Pandey2018)conducted a study under the title "measuring satisfaction of users from e-Library vis-a-vis selected libraries of Rajasthan State." This study revealed that online resources were the best that provide the latest knowledge to the researchers. Utilization of e-resources were the best thing that happened in academic institutions because it improved the research in the best way possible.

(Madu2019)conducted a study under the title "evaluation of academic staff awareness access and utilization of electronic resources (EIRs) in federal Polytechnic Ede Nigeria."The survey findings revealed that, there was apraise able level of awareness and use of electronic resources among the academia. It was recommended in the study that, the management should made some efforts to provide essential infrastructure especially internet connectivity to improve the usability of electronic information resources.

(Sharma and Gupta 2019) conduct a study under the title "satisfaction in using digital information resources by the students of IIT Madrs and IIT Roorjee: A Case Study." This study showed that the most of participants preferred to use digital and print resources for their study and research needs. Respondents were well aware of e-books and e-journals, Institutional publications, indexing, abstract ingand bibliographic databases. The study further addedthatthepurpose of majority of respondents used online resources to get the study material and they were quite satisfied with the online resources.

(Burhansab, Batcha, and Ahmad, 2020) conducted a survey as "Investigating Awareness and usage of Electronic Resources by the Library Users of Selected Colleges of Solapur University." The study explored the use and awareness level of e-resources by library users. Results revealed that 56.4 percent users were well aware and regular consumers of e-resources.

The review of literature makes it clear that there is a significant shift towards the use of e-resources across the world. Of course among the e-resources, the e-journals are the most popular medium of databases through which researchers find authentic and up-to-date information. This trend is also somewhat visible in Pakistan.

Methodology

The intent of the study was to measure and assess the awareness and use of Islamic Research Index (IRI) by the Islamic Scholars of the University of the Punjab. Quantitative research design was seemed most appropriate. A questionnaire based survey method was used for the study. By the extensive review of literature, previous studies and with the help of seniors, the instrument was developed for data collection. It consists of six parts having nineteen items. First part of questionnaire included demographic details. The second part was about the awareness of IRI. The third part was related to purpose of its use. The fourth part included usage frequency of IRI or any other online database of Islamic literature. T he fifth part was about the satisfaction. The sixth part was about the problems faced and suggestions from the participants. The research settings was the offices of the academics and class rooms for the students. Questionnaire was administered personally by the researcher and the questions were explained at the spot if necessary. MS Excel sheet was used for data analysis. Different formulas and queries were applied on the data to get the relevant results according to the objectives and questions of the study.

Data Collection

The target population of this study was all research scholars of Islamic studies in the University of the Punjab. The participants were included academic faculty, PhD, MPhil and Students (working on their research theses). Total participants were 381in strength. Due to the easy access and small in numbers census technique was employed. Total 381 questionnaires were distributed. About 362 questionnaires were got back. The response rate was approximately 95 percent. Five responses were not completely filled while 14 respondents had not replied due to leave or absent.

Data analysis and discussion

Results of analysis have been presented in the descriptive statistics.

Part1. Respondent's profile

Participants	Faculty	Students	Total	Percentage
Male	18	203	221	61%
Female	6	135	141	39%
Total	24	338	362	100%

A total of three hundred and sixty two responses were recorded. The most 221 (61%)respondents were male, while 141 (39%) were female. From the faculty side 18 male and six female were the participants, while from the student side 203 were male and 135 female were participated.

Part2. Awareness about IRI

Awareness	Participants	Percentage
Little aware	86	23.75%
Very much aware	219	60.50%

No aware	57	15.75%
Total	362	100%

A large number 219 (60.50%) of participants were very much aware of IRI, only 86 (23.75%) were little aware, while 57 (15.75%) were not aware of IRI. The participants mentioned that the source of their awareness was as 199 (54.97%) from library, 34 (9.4%) from their institute, 28 (7.73%) from AIOU website, 25 (6.9%) from friends, 14 (3.86%) from notice board and 5 (1.39%) from newsletter, while 57 (15.75%) already mentioned about their no awareness.

Part3. Purpose of Use

Purpose of use	Participants	Percentage
Download articles	172	47.5%
For assignment	76	21%
For information	57	15.75%
No use	57	15.75%
Total	362	100%

A majority of 172 (47.5%) were used IRI database for articles downloading purposes to fulfil their research needs, 76 (21%) were used for assignment completion purpose, 57 (15.75%) were used for general information needs while the same number 57 (15.75%) were non user they never take the benefit due to their lack of awareness.

Part4. Frequency of Use

Frequency of use	Participants	Percentage
Often	158	43.64%
Some times	87	24.03%
Rarely	60	16.58%
Never	57	15.75%
Total	362	100%

Data about frequency of usage of IRI reveals that mostly 158 (43.64%) participants were regular user, 87 (24.03%) were used time to time, 60 (16.58%) were used occasionally while the remaining 57 (15.75%) were those who were not aware of IRI database. Along with the usage we asked that any other database of Islamic literature they had used? It is worth mentioning that those participants who were not aware of IRI, have been user of other databases, while the statistics reveals that the 167 (46.13%) have used Oxford Islamic Studies online, 124 (34.25%) used Index Islamicus and remaining 71 (19.62%) used other databases for their research needs. Mostly 205 (56.58%) participants accessed these databases from university while 157 (43.42%) accessed from home/hostel to meet their needs.

Part5. Satisfaction

Satisfaction with IRI	Participants	Percentage
Satisfied	251	69.33%

Not satisfied	54	14.92%
No use	57	15.75%
Total	362	100%

As far as the satisfaction is concerned a dominating majority of 251 (69.33%) participants were satisfied with IRI and only 54 (14.92%) participants were not satisfied. While the remaining 57 (15.75%) participants were non user of IRI. The motive behind their use and satisfaction was to complete the task, whether it was research need, completing assignments or to get information about new articles. Another major cause in increasing of satisfaction was improvement in learning. It is pertinent to mention that from 305 IRI users of this study, an over welcoming majority of 289 (94.75%) agreed that IRI helps improvement in learning, only 16 (5.25%) participants disagree about improvement in learning. The reasons of no satisfaction includes poor arrangement of objects on the interface, complex searching provisions and difficult organization of pull down menu.

Part 6. Problems and suggestions

Problems in using IRI	Participants	Percentage
No problem	229	63.25%
Problems faced	76	21%
No use	57	15.75%
Total	362	100%

A significant number of 229 (63.25%) participants replied that they had never faced any problem during IRI use, while 76 (21%) participants indicate the problems they had faced like slow response of website, similar key words for different articles and different key words for similar articles which made difficult to sort the required information, remaining 57 (15.75%) were those who were not user of IRI. Almost a sweeping amount 275 (75.98%) of participants were on the opinion that a frequent campaign should be run to raise awareness among scholars, furthermore 87 (24.02%) suggested that regular training sessions should be arranged for the scholars as well.

Conclusion

This study reveals that Islamic scholars of the University of the Punjab were using readily available IRI database to get their information. A small segment of Islamic scholars was still unaware of the IRI. A big majority of users was satisfied but some of them were not satisfied on the end user part and faced some technical issues. IRI database needs to develop a feedback system to improve its services. It is recommended that IRI must market this database. The respondents suggests that the training workshops and lectures should be arranged.

REFERENCES & NOTES

- Ahamed, H. Fakrudhin Ali, and V. Syamala. "Use of Electronic Resources in select engineering college libraries of chittoor District." *International Journal of Digital Library Services (2014); 4 (3)* (2014): 148-165.

- Amjad, Anam, Shamshad Ahmed, and Salman Bin Naeem."Use of electronic information resources among research scholars in the Islamia University of Bahawalpur, Pakistan." *New Review of Academic Librarianship* 19, no. 3 (2013): 316-328.

- Ansari, MuniraNasreen, and BushraAdeebZuberi. "Use of electronic resources among academics at the University of Karachi." *Library philosophy and practice* 385 (2010): 1-7. Available: http://unllib.unl.edu/LPP/ansari-zuberi.htm

- Bar-Ilan, Judit, Bluma C. Peritz, and Yecheskel Wolman. "A survey on the use of electronic databases and electronic journals accessed through the web by the academic staff of Israeli universities." *The Journal of Academic Librarianship* 29, no. 6 (2003): 346-361. Available fromAGORA database http://www.agInternetwork.org

- Borrego, Angel, LluísAnglada, Maite Barrios, and NúriaComellas. "Use and users of electronic journals at Catalan universities: the results of a survey." *The Journal of Academic Librarianship* 33, no. 1 (2007): 67-75. Available from AGORA database http://www.agInternetwork.org

- Burhansab, Patel Adam, M. SadikBatcha, and Muneer Ahmad. "Investigating Awareness and usage of Electronic Resources by the Library Users of Selected Colleges of Solapur University." *Library Philosophy and Practice (e-journal)* 4309 (2020).

- Gakibayo, Anna, and Constant Okello-Obura. "Electronic information resources utilization by students in Mbarara University Library." *Library Philosophy and practice* (2013): I.

- Gupta, Sanjay Kumar, and Sanjeev Sharma. "Satisfaction in use of digital information resources & services among the students of IIT Madras." *International Journal of Information Dissemination and Technology* 6, no. 1 (2016): 63.

- Heterick, B. Faculty attidudes toward electronic resources. EDUCAUSE Review, (2002), 10-11. Available: http://net.educause.edu/ir/library/pdf/ERM0248.pdf

- Hoq, KaziMostakGausul, and MdArmanulHaque. "Student perception of electronic resources use in Rajshahi University Library: A case study." *International Journal of Library and Information Science* 10, no. 7 (2018): 78-84.

- Hussaini, Suleiman, Rajeev Vashistha, and HassanaJimah. "Awareness and utilization of library resources by library users of NIMS University

central library, Jaipur, India." *International Journal of Movement Education and Social Science* 7, no. 2 (2018): 1067-1078.

- Ibrahim, Ahmed Elhafiz. "Use and user perception of electronic resources in the United Arab Emirates University (UAEU)." (2004): 18-29.
- Islamic Research Index. (2019). Accessed http://iri.aiou.edu.pk/
- Kwadzo, Gladys. "Awareness and usage of electronic databases by geography and resource development information studies graduate students in the University of Ghana." (2015).
- Liew, Chern Li, Schubert Foo, and K. R. Chennupati. "A study of graduate students endusers' use and perception of electronic journals." *Online Information Review* (2000).
- Madu, Uwaebuka Wisdom. "Evaluation of Academic Staff Awareness, Access and Utilization of Electronic Information Resources (EIRs) in Federal Polytechnic Ede, Nigeria." *Library Philosophy and Practice* (2019): 1-19.
- Manda, Paul A. "Electronic resource usage in academic and research institutions in Tanzania." *Information development* 21, no. 4 (2005): 269-282.   Available: https://journals.sagepub.com/doi/10.1177/0266666905060070
- Mirza, Muhammad Sajid, and Khalid Mahmood. "Electronic resources and services in Pakistani university libraries: A survey of users' satisfaction." *The International Information & Library Review* 44, no. 3 (2012): 123-131.
- Morse, David H., and William A. Clintworth. "Comparing patterns of print and electronic journal use in an academic health science library." *Issues in Science and Technology Librarianship* 28, no. 26.04 (2000): 2008.
- Murugesan, M., and N. MurugesaPandian. "USE OF DIGITAL LIBRARY RESOURCES BY THE ENGINEERING COLLEGE STUDENTS: A SURVEY." *Education* 165: 55 (2012).
- Omotayo, B. O. "Access, use, and attitudes of academics toward electronic journals: A case study of ObafemiAwolowo University, Ile-Ife." *Library Philosophy and Practice* 335 (2010). Available: http://unllib.unl.edu/LPP/omotayo.htm
- Sahu, Prabha, and Shri Ram Pandey. "Measuring satisfaction of users from e-library vis-à-vis selected libraries of Rajasthan States." *Library Waves* 4, no. 1 (2018): 51-59.
- Sathe, Nila A., Jenifer L. Grady, and Nunzia B. Giuse. "Print versus electronic journals: a preliminary investigation into the effect of journal format on research processes." *Journal of the Medical Library Association* 90, no. 2 (2002): 235.

- Sharma, Chetan. "Use and impact of e-resources at Guru Gobind Singh Indraprastha University (India): A case study." (2009).
- Sharma, Sanjeev, Sanjay Gupta, and Longowal SLIET. "Satisfaction in using Digital Information Resources by the students of IIT Madras and IIT Roorkee: A study."International Journal of Library Information Network.4 no. (2019).
- Tenopir, Carol, and Eleanor Read. "Patterns of Database Use in Academic Libraries." *College & Research Libraries* (2000), 234-246.
- Tenopir, Carol. "Use and users of electronic library resources: An overview and analysis of recent research studies." *Council on Library and Information   Resources* (2003).   Available: http://www.clir.org/pubs/reports/pub120.pdf
- Thanuskodi, S. "Use of E-resources by the Students and Researchers of Faculty of Arts, Annamalai University." *International Journal of Library Science* 1, no. 1 (2012): 1-7.
- Tyagi, Sunil. "Scientists' perception of use of electronic information resources: a case study of Pharmacopoeial Laboratory for Indian medicine (PLIM)." *Library Philosophy and Practice* (2011): 1. Available at http://unllibunl.edu.
- Warraich, Nosheen Fatima, and KanwalAmeen."Perceptions of LIS professionals regarding use of Pakistan National Digital Library databases." *The Electronic Library* (2008), 28(1): 108-121
- Yebowaah, FranklinaAdjoa, and Florence DedzoeDzokotoePlockey. "Awareness and Use of Electronic Resources in University Libraries: A Case Study of University for Development Studies Library." Library Philosophy & Practice (2017), 1-33.
- Yusoff,HashimahMohd. "The use of electronic information resources among the users of Penang Public Library Corporation." (2006), 3(6):486-495
- Yusoff, YuslizaMohd, Zikri Muhammad, MohdSalehuddinMohdZahari, ErmySyaifuddinPasah, and Emmaliana Robert. "Individual differences, perceived ease of use, and perceived usefulness in the e-library usage." *Computer and Information Science* 2, no. 1 (2009): 76-83.Available   at https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=Individual+ differences%2C+perceived+ease+of+use%2C+and+perceived+usefulness +in+the+e-library+usage&btnG=