# Use of UGC-INFONET Digital Library Consortium by Faculty Members and Research Scholars in School of Physical Sciences, Mizoram University: A Study

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Abstract

*The purpose of this paper is to find out user awareness and uses of UGC-Infonet Digital Library Consortium by faculty members and research scholars in School of Physical Sciences, Mizoram University.A questionnaire based survey was conducted with all faculty members and research scholars in school of physical sciences which consisting three departments- Chemistry, Mathematics & Computer Science and Physics. This paper examine the awareness, utilization and satisfaction with UGC-Infonet digital library consortium and consortium resources by faculties and research scholars and found that 66% respondents are aware and use UGC-Infonet digital library consortium butthere is a need to conduct more awareness/tanning program for enhancing the use of the UGC-Infonet consortium.*

Keywords

Library Consortium, Electronic Resources, UGC-Infonet, Resource Sharing, Mizoram University etc.

Electronic access

The journal is available at www.jalis.in

**Journal of Advances in Library and Information Science**
ISSN: 2277-2219 Vol. 5. No.3. 2016. pp.215-222

## 1. Introduction

The scenarios of the world have been changed by the advancement in information technology and networking. Technology had made a lot of impact on service oriented sector like library and library collection and services have totally changed from past due to these impact. In the past the library collections were only in the traditional bound volumes and the Library act as a store house of bookbut now the library collection has changed from print to digital. In today's world, the libraries acquire both print as well as electronic resources to provide easy and timely access to its users. These enable the library to performed quality services to its user. The flow of information is infinite and limitless and library renamed as "Library without wall".

As facilitators of the teaching and learning process, the university libraries are expected to identify, collect, organize, and distribute both print and electronic resources. However, information explosion, diversity of users' needs and financial crunch hascome into the way of information dissemination process. The University Grant Commission, through its novel program "**UGC-Infonet Digital library Consortium**" has come forward to help the universities libraries so that they can able to access to large number of scholarly online journal. At present there are total 433 (219 Core and 214 associate) members registered in UGC-Infonet library consortium (Source: http://www.inflibnet.ac.in/econ/).

## 2. UGC-Infonet Digital Library Consortium:

The UGC-Infonet Digital Library Consortium was formally launched in December, 2003 by Honorable Dr. A.P.J. Abdul Kalam, the President of India soon after providing the Internet connectivity to the universities in the year 2003 under the UGC-Infonetprogramme. The Consortium proved to be a recipe to university libraries which have been discontinuing subscription of scholarly journals because of "Serials Crisis". The term "serials crisis" refers to exponential and continuing increase in subscription cost of scholarly journals. The crisis is a result of rise in cost of journals much faster than the rate of inflation, increase in number of journals and the scarcity of funds available to the libraries The Consortium provides current as well as archival access to more than 7500+ core and peer-reviewed journals and 10 bibliographic databases from 26 publishers and aggregators in different disciplines. The programme has been implemented in phased

manner. In the first phase that began in 2004, access to e-resources was provided to 50 universities who had Internet connectivity under the UGC-Infonet Connectivity programme of the UGC. In the second phase, 50 more universities were added to the programme in the year 2005. So far 209 Universities and 14 National Law schools and Central Universities come under the purview of UGC, and have been provided differential access to sub-scribed e-resources. These e-resources covers almost all subject disciplines including arts, humanities, social sciences, physical sciences, chemical Sciences, life sciences, computer sciences, mathematics and statistics, etc. The programme is wholly funded by the UGC and executed by the INFLIBNET (Information and Library Network) Centre, Gandhinagar.

**3.School of Physical Sciences, MZU:**

Mizoram University was established as a Central University by an Act of Parliament of India on 25th April 2000 and started functioning from 2nd July 2001.Prior to this; the University inherited from North-Eastern Hill University (NEHU) had functioned as Mizoram Campus for 24 year since 1979. At present Mizoram University comprises with 8 schools of studies and 31 academic departments. The school of physical sciences having three departments:

1. Physics
2. Chemistry
3. Mathematics and Computer Science

The School of Physical Sciences became functional (phase wise) during the Xth Plan period and at present, 3 departments which form the backbone for higher education and research in field of sciences, especially physical sciences. PG teaching in the Department of Physics started from academic session 2003 – 2004, the Department of Chemistry from session 2006 – 2007 and the Department of Mathematics & Computer Science started its teaching programme from session 2007 – 2008. Full fledged Ph.D. programmes commenced from academic session 2007-08. Research and teaching in the School is supported by faculty with various specializations and experiences which comprises of 6 Professors, 1 Associate Professors and 13 Assistant Professors.

**4.Significance and Scope of study:**

Information and knowledge have become increasingly important in this globalized world; every country, state as well as city necessitate rich collection of information due to highly demand of information that causes need of sufficient information center or library to prevent, protect and provide good collections at an accelerated speed in times of the users need. A University Library is attached with university with a vital role to meet multi dimensional information demands of teachers and research scholars and students. For effective teaching, learning and research fast and up-to-date information is essential. UGC-Infonet Digital Library Consortium facilitates extensive benefits for higher education & research. The resources act as a vial able mode to get the information patterning to the research rich resources in science from multiple journals both national and international are available on UGC-Infonet Digital Library Consortium, which promote the research of an institution. It is recognized as a source of knowledge. Therefore it is necessary to measure the usage of UGC-Infonet Digital Library Consortium by physical scientists.

The scope of the present study is limited to faculty members and research scholars of three academic departments (Physics, Chemistry and Mathematics and Computer Science) under School of Physical Sciences (SPS), MZU with details emphasis about awareness and use of UGC-Infonet digital library consortium for their teaching, learning and research purposes.

**4. Review of Literature**

Mukherjee & Kumar (2010) conducted a study to measure the use of UGC-Infonet e-journals by the research scholars of BHU and resolved that research scholars are significantly using UGC-Infonet e-journals. Walmiki (2010)examined awareness and use of UGC-Infonet digital library consortium by the faculty members of the Karnataka state universities and concluded that Indian universities are fortunate to have access to large number of scholarly publications under the UGC-Infonet digital library consortium but the benefits of consortium was not very much satisfactory because it was not reached maximum beneficiaries for various reasons. In his research he found that only 40% of faculty members in Karnataka State Universities are aware and use UGC-Infonet resources. Kumar and Kumar (2010)conducted a study on impact and use of e-resources by users of management collage in Bangalore and revealed that users are well aware of e-resources and prefer to use Internet.Das, Sahu and Mahopatra (2012) conducted astudy to find out the usage of e-resources of various publishers available

under UGC- Infonet by the research scholars of Universities in Odisha and highlighted the problems encounter by the users and suggest some remedial measures for improvement in the access facilities. Mishra and Verma (2012**)** studied about management of e-resources in IT-BHU library and found that e-resources were very useful for students, researchers and faculty members to carry out their teaching, learning and research activities.Jyoti (2012) foundthat the behavior of the research scholars and faculty members were changing very fast and they are giving more importance to electronic versions of documents.Baskaran and Kishorekumar(2013)examined the awareness of scholarly journals available through UGC-Infonet by faculty members in Algappa University. The study revealed various patterns used by faculty members in Alagappa University to access scholarly journals through UGC-Infonet and it was found that lack of proper training for accessing e-resources was an obstacle in proper utilization of the UGC-Infonet.Upadhyay (2013) evaluated the student'sbehavior towards use of e-resources at university of Delhi and found that 58% students prefer e-resources while 28% prefer both print and e-resources.

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## 5. Objectives of the Research Study

The objectives of the present study are to:

- Analyze the users approach to update about use of e-resources
- Identify the extent of awareness and use of the UGC-Infonet Digital Library Consortium
- Examine the frequency and purpose of using UGC-Infonet Digital Library Consortium
- Know the preferred format of use e-resources in UGC-Infonet Digital Library Consortium
- Satisfaction with UGC-Infonet Digital Library Consortium
- Find out the problems faced by users while using UGC-Infonet Digital Library Consortium.

## 6. Methodology

For collection of data for study, survey method has been used. A structure questionnaire are designed and circulated to 19 faculty members and 51 research scholars in School of Physical Sciences, Mizoram University in order to obtain required information with regards to awareness, access frequency, use, technical difficulties and level of satisfaction about UGC-Infonet Library Consortium.

## 7. Data Analysis:Analysis of Responses:

The analysis of responses received from respondent has been discuss in Table no 1-A .Total 70 questionnaires were distributed among the faculty and research scholars in school of physical sciences and finally 59 responses were received which constitute 84.28%. Table-1A shows the department wise analysis of respondents and it resolved that among 59 (84%) respondents, 20 (28%) were from Chemistry, 20(28%) from Physics and 19(27%) from Mathematics& Computer Science departments. Table-1B shows the designation wise analysis of respondents and it resolved that majority of respondents under the study were Research Scholars (76%), followed by Assistant Professors (14%) and Professors (8%) while Associate professor was only 2% among the respondents. Table-1C and 1D shows the gender and age wise distribution of Respondents analysis it was resolved that majority of respondents (69%) were male and only 31% were female respondents and among them 80% are below the age of 35. There were10% respondents between the age of 36-45 and 8% were between 46-55, while only one respondent are above 56 years age in the respondent.

***Table -1A:*** *Department wise responses*

| Departments | Questionnaire Distributed | Questionnaire Received |
|---|---|---|
| Chemistry | 24 | 20 (29%) |
| Physics | 23 | 20 (28%) |
| Mathematics & Computer Science | 23 | 19 (27%) |
| Total | 70 | 59 (84%) |

***Table-1B:*** *Designation wise Analysis of Respondent*

| Designation | No of Respondent |
|---|---|
| Research Scholar | 45 (76%) |
| Assistant Professor | 8 (14%) |
| Associate Professor | 1 (2%) |
| Professor | 5 (8%) |
| Total | 59 (100%) |

**Table-1C:** Gender wise distribution of Respondents:

| Gender | No of Respondent |
|---|---|
| Female | 18 (31%) |
| Male | 41(69%) |
| Total | 59(100%) |

***Table-1D:*** *Age wise distribution of respondents*

| Age Group | No of Respondent |
|---|---|
| below 35 yrs | 47 (80%) |
| between 36-45yrs | 6 (10%) |
| between 46-55 | 5 (8%) |
| 56 year above | 1(2%) |
| Total | 59 (59%) |

**Uses of electronic resources:**

The uses of electronic resources are increasingly become important day by day becouse they are up-to-date, reliable and globale accessibility. Its add a lot of value in conducting R&D activities. Table-2 reveals the use of e-resources by respondents and found that 43(73%) respondents which constituting 10(71%) faculties and 33(73%) research scholars were using resources while 16(27%) respondents were not using electronic resources for their academic purpose.

***Table-2:*** *Uses of electronic resources*

| Use of electronic resources | Faculty | Research Scholar | Total |
|---|---|---|---|
| Yes | 10 (71%) | 33(73%) | 43(73%) |
| No | 4(29%) | 12(27%) | 16(27%) |
| Total | 14(100%) | 45(100%) | 59(100%) |

**Mean to acquire update about online contents:**

There are lot of diversity in electronic resources, therefore awarness about e-resources is very important becouse without knowing source, it is very difficult to find relevent information. Table-3 discribed the way to know about e-resource information and found that search engine was most favorite way to find out e-resources by respondents. Total 30 (70%) respondents which constituting 6 (60%) faculties and 24(73%) research scholars were search content according to requirement on search engine while 6(14%) respondents browse table of content of online journals and 5(11%) got information about e-resources through discussion list/forum .Only 2(5%) respondents got email-alert services about e-resources.

**Table-3:** Respondents approach towars online content

| Source | Faculty (N=10) | Research Scholar (N=33) | Total (N=43) |
|---|---|---|---|
| Search content according to requirement on search engine | 6(60%) | 24(73%) | 30 (70%) |
| Browse table of content of online journals | 2(20%) | 4 (12%) | 6(14%) |
| Received table of content through email-alert services | 1(10%) | 1(3%) | 2 (5%) |
| Through discussion list/forum | 1(10%) | 4 (12%) | 5(11%) |
| Total | 10(100%) | 33 (100%) | 43 (100%) |

**Preferred way to access electronic resources:**

Now in a present digital environment, there are lot of rout to search electronic resources. Table-4 discribed the rout to search electronic resources and found that search engine was most favorite rout to search e-resources by respondents. Total 21 (49%) respondents which constituting 5(57%) faculties and 16(49%) research scholars were search content through search engine while 12 (28%) respondents search on open access online journals and 3(7%) search electronic resources through library website . Only 7(16%) respondents got email-alert services about e-resources.

***Table-4:*** *Preffred way to access electronic resources*

| Brows through | Faculty (N=10) | Research Scholar (N=33) | Total (N=43) |
|---|---|---|---|
| Search engine (eq. Google) | 5 (57%) | 16(49%) | 21 (49%) |
| Open access journal Directory | 2 (43%) | 10 (30%) | 12 (28%) |
| Library Website | 1(36%) | 2 (6%) | 3 (7%) |
| UGC-Infonet Consortium | 2(36%) | 5(15%) | 7 (16%) |
| Total | 10 (100%) | 33 (100%) | 43(100 %) |

**Status of awareness of UGC-INFONET:**

Under the UGC-Infonet digital library consortium around 7500+ digital resources are available free of cost which included all subjects. This is a gateway of knowledge where a many databases and electronic journals are available in physical sciences discipline. Table-5 reflect the awareness among respondent about this consortium and it was resolved that 39 (66%) respondents which constituting 10 (71%) the faculties and 29(64%) research scholars were aware about UGC-Infonet Library consortium and 34% respondents which constituting 4(29%) the faculties and 16(36%) research scholars were not aware with this consortium and its resources

***Table-5:*** *Awareness of UGC-INFORNET*

| Aware with UGC-INFONET | Faculty | Research Scholar | Total |
|---|---|---|---|
| Yes | 10 (71 %) | 29 (64 %) | 39 (66 %) |
| No | 4 (29 %) | 16 (36 %) | 20 (34 %) |
| Total | 14 (100 %) | 45 (100 %) | 59 (100 %) |

**Source of awareness about UGC-Infonet consortium:**

Proper information with right source is essential for proper utilization of UGC-Infonet resources. Always source of information has an important role in terms of awareness about information source. Table-6 shows the source of awareness about UGC-Infonet consortium among respondent and it was resolved that 4(40%) faculties and 6(23%) research scholars came to know about UGC-Infonet from their Friends/colleagues, 2(20%) faculties and 6(23%) research scholars from library staffs, 1(10%) faculty and 2(7%) research scholars from Internet. The 10% faculties reported that they came to know about UGC-Infonet by self and 20% through library website while maximum research scholars 9(31%) came to know from library orientation program and 6(23%) known from their teachers.

***Table-6:*** *Source of awareness of UGC-Infonet consortium*

| Source | Faculty (N=10) | Research Scholar (N=29) | Total (N=39) |
|---|---|---|---|
| Self | 1(10%) | 0 | 1(3%) |
| Friends/colleagues | 4(40%) | 6(23%) | 10(26%) |
| Library staff | 2(20%) | 6(23%) | 8(21%) |
| Internet | 1 (10%) | 2((7%) | 3(7%) |
| Teacher | 0 | 6(23%) | 6(15%) |
| Library Website | 2(20%) | 0 | 2(5%) |
| Library Orientation | 0 | 9(31%) | 9(23%) |
| Total | 10(100%) | 29(100%) | 39 (100%) |

**Frequency to access of consortium:**

Usage of UGC-Infonet is a parameter to measure the frequency of uses of this library consortium. The frequency of use is directly related with usage of consortium by users. Table-7, supported with figure-1 reflects the frequency to Use UGC-Infonet by respondent and it was found that no research scholars were using UGC-Infonet consortium every day while 30%faculties used this consortium every day. 14(36%) respondents which constituting 4 (40%) faculties and 10(34%) research scholars used 2-3 times in a week, 2(20%) faculties and12(41%) research scholars (Total-36% respondents) used Once in a week and 1(10%) faculties and 5(18%) research scholars (Total- 15% respondents) used UGC-Infonet consortium Occasionally.

***Table-7: Frequency to use UGC-Infonet consortium***

| Access Point | Faculty (N=10) | Research Scholar (N=29) | Total (N=39) |
|---|---|---|---|
| Every Day | 3(30%) | 0(%) | 3(8%) |
| 2-3 times in a week | 4(40%) | 10(34%) | 14(36%) |
| Once in a week | 2(20%) | 12(41%) | 14(36%) |
| Once in a two weeks | 0(%) | 2(7%) | 2(5%) |
| Occasionally | 1(10%) | 5(18%) | 6(15%) |
| Total | 10(%) | 29(100%) | 39(100%) |

**Preferred Place to use UGC-Infonet:**

The UGC- Infonet library consortium resources are available on university intranet campus network and from whole campus it is accessible. The users can access these resources according to their preference and need.Table-8 shows the preferred place to use UGC-Infone**t** by respondent and it was found that all the faculties used UGC-Infonet consortium from their department (own computer). Among the research scholars, majority of them 13 (45%) used this consortium in computer center, followed by 10 (34%) department (lab/laptop) and 6 (21%) preferred to use from hostel. No respondents were used UGC-Infonet from library.

***Table-8:*** *Preferred place to use UGC-Infonet*

| Preferred place | Faculty (N=10) | Research Scholar (N=29) | Total |
|---|---|---|---|
| University Library | 0 | 0 | 0 |
| Computer Centre | 0 | 13 (45%) | 13(34%) |
| Department | 10(100%) | 10 (34%) | 20(51%) |
| Hostels | 0 | 6 (21%) | 6(15%) |
| Total | 10(100%) | 29(100%) | 39(100) |

**Purpose of usage UGC-Infonet Library Consortium:**

The respondents were using the UGC-Infonet consortium resources for different academic purposes and many were used it for more than one purpose.Table-9 supported with figure-2 shows the purpose to use UGC-Infonet consortium and after analysis it was resolved that faculties used UGC-Infonet for personal update (60%), teaching(80%), research (80%), guide research students(70%) and writing research article (80%) while the research scholars used this consortium for three purposes i.e. personal update (70%),research (97%), and writing research article (66%).

***Table-9:*** *Purpose of use UGC-Infonet*

| Purpose | Faculty (N=10) | Research Scholar (N=29) |
|---|---|---|
| Personal update | 6 (60%) | 20((70%) |
| For Teaching | 8 (80%) | - |
| For Research | 8 (80%) | 28 (97%) |
| For Guiding Research Student | 7 (70%) | 0 |
| For writing Research Articles | 8 (80%) | 19 (66%) |

**Preferred file format to download content**

The electronic resources are available in different format (PDF and HTML) in UGC-Infonet consortium. Users can download and use according to their preferred format. Table-10 shows the preferred format to download the e-resources and found that PDF was the most preferred format and almost all (95%) respondents prefer to download resources in PDF format.

***Table-10:*** *Preferred file format*

| File Format | Faculty (N=10) | Research Scholar (N=29) | Total |
|---|---|---|---|
| HTML | 1(10% | 1(3%) | 2(5%) |
| PDF | 9(90%) | 28(97%) | 37(95%) |
| Total | 10(100%) | 29(100%) | 39(100%) |

**Opening about rating of the UGC-Infonet consortium**

User's opinion about usefulness is a type of feedback about rating of UGC-Infonet consortium services. Table-11, supported with figure-3 shows views of respondent about usefulness of UGC-Infonet consortium and found that 49% respondents which contains 50% faculties and 49% research scholars reported that UGC-Infonet consortium are very useful while 21% faculties and 15% research scholars (total-17% respondents) reported that it is useful while 34% respondents reported that they cannot say about usefulness of this consortium

***Table-11:*** *Rating of UGC-Infonet consortium*

| Rating | Faculty | Research Scholar | Total |
|---|---|---|---|
| Very Useful | 7(50%) | 22(49%) | 29(49%) |
| Useful | 3((21%) | 7(15%) | 10(17%) |
| Cannot Say | 4(29%) | 16(36%) | 20(34%) |
| Total | 14(100%) | 45(100%) | 59(100%) |

**Main problems facing by respondents in accessing of UGC-Infonet:**

The respondents have many problems in access UGC-Infonet consortium and many respondent given more than one problem in this regard which has been tabulated in Table-12 for better clarity of analysis and found that 50(85%) respondents were indicated that slow internet connectivity as the main problem in accessing UGC-Infonet consortium and 31(53%) respondent said that lack of knowledge to use as problem while 27(46%) respondents indicated lack of relevant information sources as a problem. In faculty respondents, 93% reported internet speed as a main problem followed by 6(43%) lack of knowledge to use and 6(43%) respondents reported lack of relevant information sources as a problem. In research scholars group also 37(82%) respondents reported Internet speed as their main problem followed by

26(58%) lack of accessibility at department/work place, 25(56%) Lack of knowledge to use, 23(51%) un-sufficient Internet nodes and 21(47%) Lacks of relevant information sources were the other problem with regard to UGC-Infonet consortium.

***Table-12: Problems in accessing UGC-Infonet***

| ***Problems*** | Faculty (N=14) | Research Scholar (N=45) | Total (N=59) |
|---|---|---|---|
| Lack of knowledge to use | 6(43%) | 25(56%) | 31(53%) |
| Lack of sufficient Internet nodes in University | 0 | 23((51%) | 23 (40%) |
| Lack of accessibility to UGC-Infonet consortium at department /work place | 0 | 26(58%) | 26(44%) |
| Slow Internet connectivity | 13(93%) | 37(82%) | 50(85%) |
| Lack of relevant information sources | 6(43%) | 21(47%) | 27(46%) |

**8. Findings**

The major findings of this study are:

- The respondent ratio is almost equal to all the three departments under the school of Physical Science in the study. Among the respondents, 76% were research scholars and 24% were faculties and majorities were the males (69%). 80% respondents were young and belong to below that 35 years age and only one respondent was above than 56 years in age..
- The most favorite rout to search e-resources was search engine and 70% respondents searched their information through this mode which was followed by 14% from table of contents of online journals, 5% through e-mail alert services and 11% through discussion list/forum.
- Most of the faculty members and research scholars in School of Physical Sciences were aware with UGC -Infonet Digital Library Consortium. It was found that 66% respondents which constituting 71% the faculties and 64% research scholars were aware while 34% respondents were not aware with this consortium and its resources.
- The Friends/colleagues were the major source of awareness about UGC-Infonet consortium among respondents which was followed by library staffs and teachers. Some respondents came to know from library website and Internet. The library orientation was a major source of awareness about UGC-Infonet among research scholars.
- The preferred place to used consortium is department. 72% respondentsused UGC-Infonet consortium 2-3 times in a week or once in a week. Only 30% faculty members used UGC-Infonet consortium daily while no research scholars used this consortium on daily and 15% respondents used occasionally.
- The respondents used this consortium for more than one purposes.Thefaculties used UGC-Infonet for personal update (60%); teaching (80%); research (80%), and guide research students (70%) and writing research article (80%) while the research scholars used this consortium for three purposes i.e. personal update (70%), research (97%), and writing research article (66%). The PDF was most preferred formate to download the content from consortium.
- The 49% respondent feels that this consortium was very useful while 17% feel that it was useful while 34% respondents reported that they can not say anything about usefulness of UGC-Infonet library consortium..

**9.Conclusion**

UGC-Infonet Digital Library Consortium is very useful for academic communities' and it was proved by several studies as discuss in review of literature. The faculty members and the Research Scholars of School of Physical Sciences of Mizoram University also feel that it is very useful for them and it has a lot of positive impact on their academic and research performance. UGC-Infonet e-journals are perceived as a tool with positive impact and this study has assisted to respondents to express their satisfaction and desire for improvement. Survey, usage statistics, and feed back always remain effective tools to measure the usage to enhance the use of e-resources and it should be conducted a time of interval. More awareness and training programs shall be organize for more awareness and it will enhance the use of UGC-Infonet consortium.

**References**

[1]. Baskaran, C and Kishorekumar, S. (2013). Scholarly journals access through UGC-INFONET among the faculty members in

Alagappa University. *SRELS Journals of Information Management.* Vol. 50 (2); 201- 207.

[2]. Das, Prangya. Sahu, Gopabandhu and Mahopatra, R.K.(2012). Use of UGC-Infonet consortium by research scholars in university of Odhisa: A study. *IASLIC Bulletin*, Vol. 57 No.3;171- 182.

[3]. Mishra, Rajani and Verma, Manoj Kumar (2012). Management of e-resources in IT-BHU library: Problems and prospect. Conference Proceeding on- *Innovative Challenges in Information Services*, edited by DrSangita Gupta; Kutub publication; 205-212.

[4]. Jyoti, Rakesh Kumar (2012). Use of e-resources by research scholaors and faculty members of the department of geography in JamiaMilliaIslamia University: A survey. Conference Proceeding on- *Innovative Challenges in Information Services*, edited by DrSangita Gupta; Kutub publication; 213-227.

[5]. Walmiki, R.H. (2010). Awareness and use of UGC-Infonet digital Library consortium by the faculty members of the Karnataka state universities. Annals of Library and Information Studies; Vol 57, 33-43.

[6]. Kumar S.B. and Kumar G.T. (2010). Perception and usage of e-resources and Internet by indian academics. The Electronic Library, 28(1), 137-156.

[7]. Upadhyay, C.N. (2013). An evaluation of impact and students behavior towards the use of e-resources at the collage of Ramanujan, University of Delhi. Professional journal of Library and Information Technology, 3(1), 52-61.

[8]. Mukherjee, B. & Kumar, P. (2010). Use of UGC-Infonet e-journals by the research scholars of the Banaras Hindu University, Varanasi: A case study. *Annals Lib. Inf. Stud.*, 57, 339-47.

[9]. Bhatt, R.K. (2010). Use of UGC-Infonet digital library consortium resources by research scholars and faculty members of the University of Delhi in History and Political Science: A study. *Library Management*,31(4/5), 319-43.http://www.emeraldinsight.com/Journalshtm?articleid=1860 253.

[10]. Khaiser, N. and Pramodini, B. (2007). Use of e-journals and databases by academic community of University of Mysore: A study. Annals of Library & Information Studies, 54,19-22.

[11]. Mukherjee, Bhaskar. Kumar, Prashant. (2010): Use of UGC-Infonet e-resources by research scholars of the Banaras Hindu University, Varanasi: A case study. Annals of Library and Information Studies, Vol. 57;.39-347

[12]. Noushia, Parveen. (2014). Awareness and Use of UGC Infonet Digital Library Consortium by the Scholars in University of Lucknow. Journal of Knowledge & Communication Management, Vol. 4 (1); 42-54.

[13]. http://www.inflibnet.ac.in/econ/downloads.php/ (accessed on 27 October 2014).

[14]. Arora, J. and Trivedi, K (2010). UGC-INFONET Digital Library Consortium: presen services and future endeavours. *DESIDOC J.Library Inf. Technol*. 30, 15–25.

[15]. Chand, Prem, Th. Satyabati Devi &Chauhan, Suresh K. (2006). Assessment and Evaluation of Usage of UGC-INFONET E-Journal Consortium in North East Universities. 4th Convention: PLANNER-2006, (Mizoram University, November 09-10). .351-356.

[16]. Madhusudhan, Margam (2008). Use of UGC-Infonet e-journals by research scholars and students of the University of Delhi, Delhi: A study. Library Hi Tech. Vol. 26, No.3; 369-386.

[17]. Verma,Manoj Kumar (2011). Electronic Publication and Its Application in Libraries. *Gyankosh-The Journal of Library & Information. Management*. 2(1), 68-73.

[18]. Verma,Manoj Kumar& Rajeev, Pratima (2015). Use of Electronic Resources by Academia of MBA Department, Pt. RavishankarShukla University, Raipur: A Study.*Indian Journal of Information Sources and Services*. 5(2), 34-38.