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Information acceleration into access on acquiring skill under consortium based resources in the selected Universities of Kerala, India.

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ABSTRACT

The study analyses that UGC-INFONET services offered in the Select State Universities of Kerala. The respondents of the study were 421 from selected State Universities in Kerala State, India. The Respondents categorize include Teaching faculty, Research Scholars and PG Students, the analysis made effective use of Electronic resources in rely on academic research prevalence of their needs in the Six State Universities of Kerala. The results examined out of 421 respondents, 220 (52.3%) of them belong to Research scholar. majority of respondents 109 (25.9%) are post graduates and 75 (17.8%) are having PG with NET qualification. Mean value for 'To borrow books' was 3.86 and assigned the rank one. Majority of respondents 416 (98.8%) are searching for educational and research Information. The findings of the study could identify the various parameters while access Electronic resources by the academic community. The study would helpful to bring to access Electronic Information for momentum of gain research and academic ideas among the users.

Keywords: Electronic Resources, Faculty, Research Scholars, Students and UGC-INFONET.

1.INTRODUCTION

The library and its clients of higher education segment have in a general sense affected with the articulated move from print resources to Electronic resources. The knowledge and its means of communication are also very complex nowadays. A library is a place where the communication of knowledge through user friendly devices, thus imparting Information, library plays a vital role. In India, application of ICT in libraries has not reached a very high level due to lack of budget, lack of manpower, lack of skilled staff and lack of training (Sampath Kumar, 2010). The concept of 'Library without walls' has much significance when we discuss about Electronic resources. The ready availability of thousands of Electronic databases demanded the proper management of these resources. Thus it results in better usage of these resources and quality improvement in higher education. A library consortium denotes the cooperation and collaboration among the libraries for sharing Information resources (Walmiki, 2010).

Goudar & Poornima, Narayana (2004) discussed that print journals continue to dominate both from user's point of view and publishers' revenue. The advent of e-publishing has brought a revolution in journal publication, subscription, and access and delivery mechanism. Print journals publishing costs include high article processing costs, high production and marketing costs. E-journal production and access costs are increased further due to infrastructure, customer support, IT savvy human resources, etc. While these costs form the base, other pricing factors include number of nodes, multiple campuses, access mode, training, perpetual access, etc. A study indicates that one of the US University Science Library spends 76 % of its journals budget on titles of 10 major publishers like Elsevier, Springer, Wiley, Harcourt, Kluwer, Plenum, Blackwell, AIP, Marcel Dekker and Taylor Francis. This holds good for most of STM institutions too. The dwindling library budgets and growing number of journals force libraries to form consortia for accessing e-journals. The old concept 'consortia' means a strategic alliance of institutions having common interests. Neither libraries nor the publishers have sufficient experience or data to determine the appropriate unit cost of information, the effective return on investment, or the most appropriate economic model for charging or paying for electronic information. There are no universally acceptable e-journals pricing and licensing models. Current pricing models for e-information, which are developing during a period of experimentation, are not sustainable. Although it can not be generalized the learned society publishers are increasingly prepared to make all their non-subscribed journals available to consortia in return for a relatively small extra payment.

2. LITERATURE REVIEW

The study highlights the reasons for starting consortia and give an idea of highly decentralized to highly centralized consortia models. The consortia movement currently becomes sharing of integrated library systems, Information databases, collection development, cooperative purchasing of e-journals and manpower sharing. With the establishment of consortium there are increased levels of services to patrons which were not having them before. Major advantage of forming such cooperation was cost savings, as the consortium shares the expenditure. Sathe (2002) investigated the impact of e-journals on research process. The study results pointed out that fellows, students, and residents prefer e-journals, and faculty prefer print journals. Users consider e-journals easy to access and search than print journals; however, they consider print journals are having good quality text and figures. Carol Tenopir (2003) examined the usage of Electronic resources and print resources in the library. The study was conducted in two levels. In the first level major studies on the usage of e-resources were examined and in the second stage, researches on users' preference for print and e-resources and services of library were studied. Even though there is no single system for collection

development, users can be segmented to groups which shows similar preference and patterns of usage.

Farb & Angela Riggio (2004) attempted to examine the metadata standards, structures and schema significant for managing Electronic resources. The article pointed out, why e-resource management is so difficult and what metadata standards are required to manage e-resources. It reveals that currently there is no single standard or structure to tackle the difficulties of managing e-resources. Lack of existing metadata schema to manage the e-resources, there is a growing need for libraries to track the persistence and accessibility of the e-resources. Jane Secker (2004) deals with the current topic of e-resources and e-learning in the digital age. It starts by mentioning the changing 'Information environment' where the librarians presently work. It also discusses about the development of e-learning and its impact on higher education sector, the changing role of the librarians in supporting e-learning; the technical problems faced while connecting up library systems; the licensing and copyright of e-resources; and, finally it offers tips for librarians. Murthy et.al (2005) observed that all educated system must have to depend on authentic, factual and up to date Information. University Grand Commission (UGC) initiated two projects viz, UGC-INFONET and UGC-INFONET E-journal Consortium. Dadzie (2005) observed that usage of computer general for accessing Information was high because of the University's state-of-the art IT infrastructure. Use of some e-resources was good, but the usage of scholarly e-databases was very low. The users are not well aware about the existence of these Electronic library resources. The study suggests for the introduction of Information literacy course in the curriculum and the provision of more computers in campus.

Blanca San Jose & Pacios (2005) found that acceptance of Electronic journals by the users is excellent. Consortia purchasing projects have become the basic tool for collection development. Librarians have to acquire negotiating skills to facilitate cooperative development. Prem Chand (2005) studied the development of internet in 1990's which paved the way for the Electronic journals. The factors which replaced by the e-journals are the low library budget and increasing cost of subscription of print journals. Thiyam Satyabati Devi and Murthy (2005) has examined that library consortium is considered as a vital part in the academic structure. The paper explains the policies, characteristics and internal structure and objectives of UGC- INFONET Consortium. Under UGC, this consortium is well known in the field of Higher education. Rupak Chakravarty & Sukhwinder Singh (2005) have analysed that Indian Libraries are facing the problem of shrinking the budget, but the rapid increase in the price of journals. UGC-INFONET and INDEST-Consortium are two major initiatives that have come to the rescue of academic libraries so that they can cater to the needs of patrons. Murthy et.al (2005) observed that all educated system must have to depend on authentic, factual and up to date Information. University Grand Commission (UGC) initiated two projects viz. UGC-INFONET and UGC-INFONET E-journal Consortium. The first one provides connectivity to Universities, whereas the later provide access to Electronic journals and data base. The program is funded by UGC and ERNET and execution of the project is done by INFLIBNET.

UGC-INFONET consortium resources were used among the respondents in Aligarh Muslim University. The data were collected through questionnaire supplemented with interview schedule. The sample size is 325 and was analyzed. The study also verifies the utilization and satisfaction level of users (Bharati & Mustafa Zaidi, 2008). Faizul Nisha, Naushad Ali & Tabassum Ara (2008) explained the significance and importance of INDEST-AICTE Consortium of MHRD and UGC-INFONET Consortium of INFLIBNET, UGC. They examined the use of these consortia by the users of IIT Delhi and Delhi University. 120 questionnaires were distributed among the library users of IIT (D) and Delhi University libraries. Out of 100 filled questionnaires 90 were chosen for analysis of data and 10 questionnaires were rejected because of incompleteness. Jyoti Bhatt & Nilesh Joshi, (2009) have examined that due to the impact of IT, ICT and Electronic Information are found compliments to Library Resources. E-Journals accelerated the usage of the research material in academic libraries. The Project focuses on the usage of Electronic Information accessible through UGC-INFONET Digital Library Consortium on the campus of The Maharaja Sayajirao University of Baroda. Jagdish Arora & Kruti Trivedi, (2010) have observed that the education system in India is large and complex. India plays an eminent role in higher education system in the world behind China and the United states. India has more than 471 universities, 22064 affiliated colleges and 5.21 lakhs faculty. In 2004, the UGC-INFONET Digital Library Consortium Launched. It provides access to 5790 journals to 160 universities. The study reveals the activities, operations and services of UGC-INFONET Digital Library Consortium. It explains the methods used for the promotion of Electronic Information amongst member universities. The article reveals the economics and future endeavours of the UGC INFONET Digital Library. Munira Nasreen Ansari & Bushra Adeb Zuberi, (2010) have explained that Electronic Information is the best way for getting current and up-to-date Information. Electronic Information does not properly used by the academic community because of networking problems and lack of adequate training. A majority of people in academic area are quite satisfied with the Electronic Information but still they regard them as less reliable. Electronic Information produced by authentic organization is to be authentic and reliable. Baskaran & Kishore Kumar (2013) have discussed that various patterns of use by the Professors and Associate Professors for instance. Assistant professors use the resources for study purpose. The faculty members also get to acquire the guidance and experience for accessing the scholarly journals from the Library staff and from the senior faculty members. It is however found that lack of training for accessing is an obstacle in proper and full utilization of them. Further, the study has also be conducted a survey on use and access to Electronic Information through the search facilities provided to access full text articles by the publishers. Baskaran (2013) analysed the population included in the study comprised of 120 respondents from Arts, Science, Management and Education departments and that of the faculty is 45 and 58 are research scholars. This study reveals that most of the faculty members have weekly access to e-journals, which is, 24 (44%). The faculty members and research scholars are aware of UGC@ INFONET, which accounts to 103 (85.99%) and 17 (14.16) respondents are not aware of this programme.

3. OBJECTIVES OF THE STUDY

1. To analyse the University-wise respondents who responded from Six State Universities in Kerala,
2. To analyze the purpose of visit the University Library for obtaining various tasks fulfilled by the respondents,
3. To observe the Information from Internet and their frequency of use internet by the respondents.
4. To explore that the respondents retrieved the Information from various types of Information from UGC-INFONET consortium.
5. To assess the rating and factors on Information retrieved from Internet &
6. To analyze the Level of satisfaction of Electronic Information Resources provided through UGC-INFONET consortium in the State Universities in Kerala.

4. METHODOLOGY

The present study has adopted data collection among Six Universities in the Kerala State with framing of structured questionnaire. A widespread literature survey about the research topic was carried out on the topic of the research. The study has done with the help of online databases, and other reference sources. The population of the present study comprises of the teaching faculty, research scholars and post graduate students in Selected Six State Universities in Kerala. The Data collection for present study was conducted from Sree Sankaracharya University of Sanskrit Kaladi, Cochin University of Science and Technology (CUSAT), University of Calicut, Mahatma Gandhi University, University of Kerala and Kannur University. The researcher conducted the study under non-random sampling method and questionnaire distributed to the respondents for the study. Total no. of 500 respondents selected from Six State Universities in Kerala, of which 421 (84.2%) of the respondents were returned back filled questionnaire to the researcher. from the selected Universities in Kerala, India for the present study. Further, Data exported to Statistical software (SPSS) for tabulation, subsequently several further analyses made in terms of %ile and Mean, ANOVA and F-test etc. conducted for the present study.

5. DATA ANALYSIS

University- wise respondents of the study

Data presented in Table 1, University wise distribution of the respondents of the study. Out of 421 respondents, 112 (26.6%) of them were reported from Cochin University of Science And Technology (CUSAT). It is followed by 75 (17.8%) of the respondents from University of Calicut, 69 (16.4%) of them from Mahatma Gandhi University, 60 (14.3%) of the respondents from University of Kerala, 53 (12.6%) of

them from Sree Sankaracharya University of Sanskrit and 52 (12.4%) are from Kannur University (Fig. 1). Further, It could be noticed that 44.4 % of them two Universities shared together by Cochin University of Science And Technology (CUSAT) and University of Calicut. On the other hand, 55.6% of the respondents together responded from three Universities are Mahatma Gandhi University, University of Kerala and Sree Sankaracharya University of Sanskrit, the study reported in Figure 1.

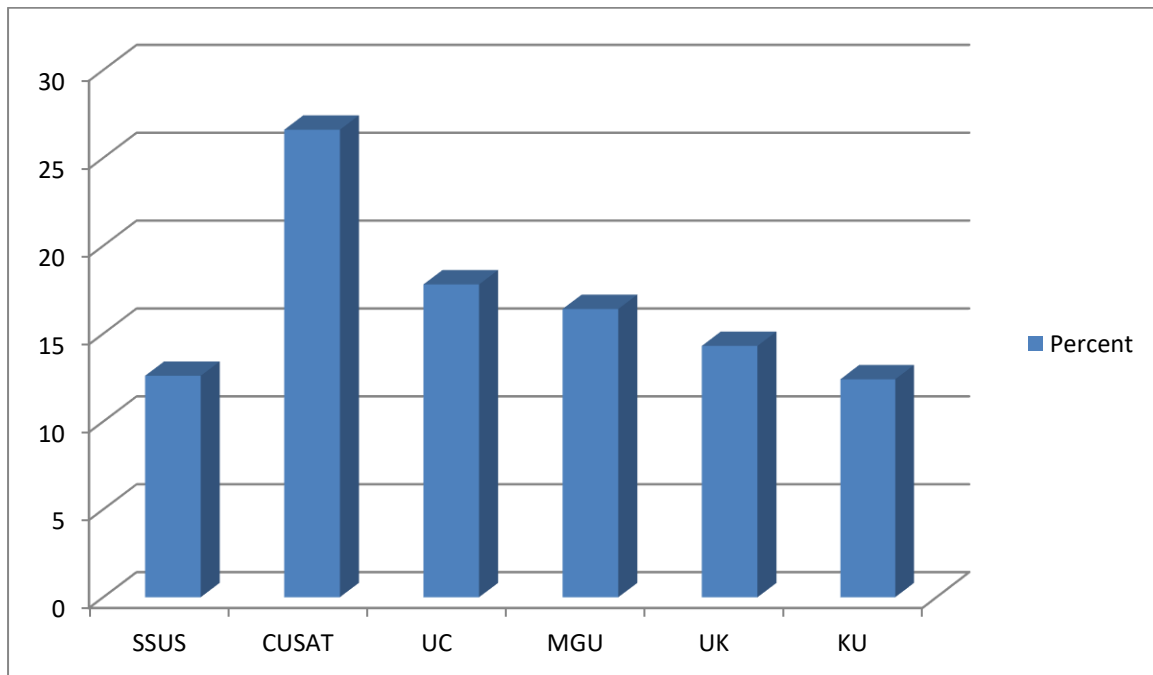


Figure 1 University- wise respondents of the study

Table 1 University- wise respondents of the study

Name of university	Frequency	%
1. Sree Sankaracharya University of Sanskrit Kaladi	53	12.6
2. Cochin University of Science and Technology	112	26.6
3. University of Calicut	75	17.8
4. Mahatma Gandhi	69	16.4

University, and		
5. University of Kerala	60	14.3
6. Kannur University	52	12.4
<hr/>		
Total	421	100
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Educational qualification of the respondents

It is identified from the Table 2 the majority of respondents 109 (25.9%) are post graduates and 75 (17.8%) of the respondents were qualified PG with NET qualification. It is followed by 61 (14.5%) respondents with M. Phil and 54 (12.8%) having M. Phil with NET qualification. Among the total respondents 44 (10.5%) were qualified Ph.D and 32 (7.6%) have Ph.D with NET. 46 (10.9%) were Under Graduates.

Table 2 Educational qualification of the respondents

Educational qualification	Frequency	%
UG	46	10.9
PG	109	25.9
PG with NET	75	17.8
M.Phil	61	14.5
M.Phil with NET	54	12.8
Ph.D	44	10.5
Ph.D with NET	32	7.6
<hr/>		
Total	421	
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Discipline wise respondents of the study

A study of data in Table 3 describes those faculty wise respondents of the study. It is observed that out of 421 respondents, 140 (33.3%) of them responded

from faculty of science. It followed by 121 (28.7%) of them reported from faculty of Arts, 60 (14.3%) of them belonging to Social Science, 40 (9.5%) of them responded from Engineering and Technology, 31 (7.4%) are from Management and 29 (6.9%) are belonging to other faculty. It is concluded from figure 3, the majority of respondents are from science faculty.

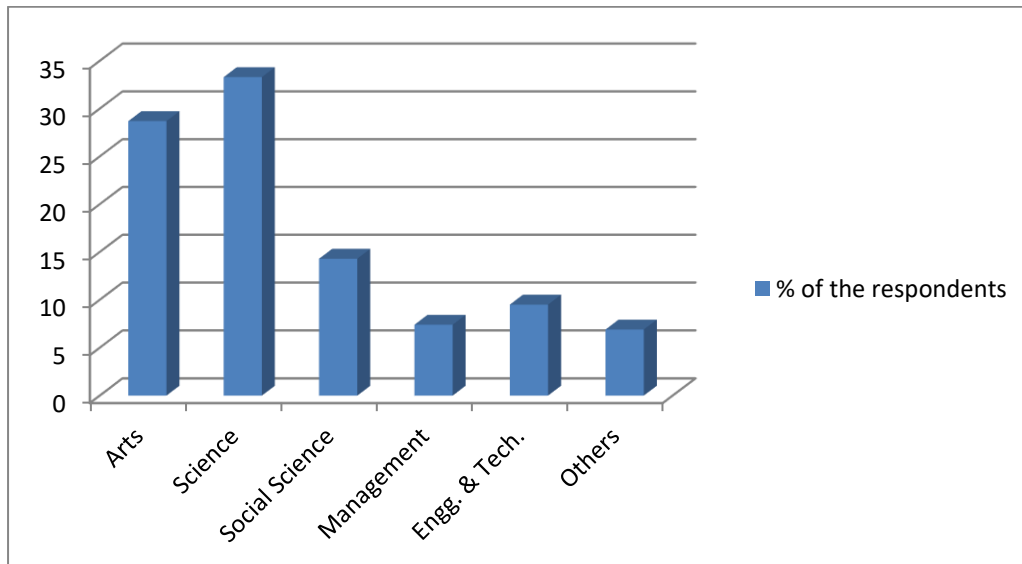


Figure 2 Discipline - wise respondents of the study

Table 3 Discipline- wise respondents of the study

Faculty	Frequency	%
Arts	121	28.7
Science	140	33.3
Social science	60	14.3
Management	31	7.4
Engg. & Tech.	40	9.5
Others	29	6.9
Total	421	

Purpose of visit to the University Library by the respondents

Table 4 shows the respondents were claimed the purpose of "Visit to Library" on a rating scale of 1-5. The mean score of each purpose is computed on the basis of

this rating and ranks were assigned to them based on mean. In the result analysis, mean value for "To borrow Books" was 3.86 and assigned the rank one, followed by "To read Journals/periodicals" (Mean 3.72) with rank two, "To consult Reference Books" (Mean 3.61) rank Third, "Using Electronic resources" (Mean 3.44) rank fourth and respondents visit University Library for "Other purposes" scored mean value 2.42 was ranked fifth.

Table 4 Purpose of visit to the University Library by the respondents

Purposes of visit	Mean	Rank
To borrow books	3.86	1
To read Journals/periodicals	3.72	2
To consult reference books	3.61	3
Using Electronic resources (e-journals/e-books etc.)	3.44	4
Other purposes	2.42	5

Training needful to access Electronic Information

It is understood from the Table 5, out of 421 respondents 257 (61%) were getting adequate training for using Electronic resources. On the other hand, 164 (39%) are not getting adequate training for accessing Electronic Information under UGC-INFONET.

Table 5 Training needful to access Electronic Information

Adequate training for using Electronic resources	Frequency	%
Yes	257	61.0
No	164	39.0

Extent to which the retrieved Information from UGC-INFONET

The result exhibited in table 6, usefulness of UGC-INFONET e-resources among the respondents in the State Universities of Kerala. The respondents are very positively responded to the purposes asked in the questionnaire. The mean %age score for the first ten purposes such as preparing seminar/conference papers, curriculum update, finding relevant subject Information, guiding to student project, improve the subject knowledge, reference to research work, reference to funded

project, teaching, writing journal article, obtain the subject Information, are in the interval 50 to 75% which means they are used at 'Large extent'. For the 'other purposes' the mean score is 49.8% which means 'Some extent'.

Table 6 Extent to which the retrieved Information from UGC-INFONET

Purpose	Mean	Mean %	Type of Extent
Preparing Seminar/Conference Papers	3.5	70.0	Large Extent
Curriculum update	3.03	60.6	Large Extent
Finding relevant subject Information	3.59	71.8	Large Extent
Guiding to student project	2.93	58.6	Large Extent
Improve the subject knowledge	3.55	71.0	Large Extent
Reference to research work	3.51	70.2	Large Extent
Reference to funded project	2.84	56.8	Large Extent
Teaching	2.86	57.2	Large Extent
Writing journal article	3.18	63.6	Large Extent
Obtain the subject Information	3.28	65.6	Large Extent
Other purposes	2.49	49.8	Some Extent

Preferences given to devices on read the full text articles

The analysis in table 7, the method of preferences for reading the full text articles reveals that the mean %age score for methods such as read from print out, from computer screen, using e-Book reader, from copied on USB, from preserved in Laptop, from maintained as E-print lies in the interval 50 to 75%. So these methods are used at 'Large Extent. Whereas the mean %age score for 'read from downloaded' is 79.6% which is above 75% and this method is used at 'Very Large Extent'. Other methods are used at 'some extent because the mean %age score was 49 %.

Table 8 Preferences given to devices on read the full text articles

Method	Mean	Mean %	Type of Extent
From Printout	3.74	74.8	Large Extent
From Computer screen	3.67	73.4	Large Extent
Using e-Book reader	2.79	55.8	Large Extent
From downloaded	3.98	79.6	Very Large Extent
From Copied on USB	3.44	68.8	Large Extent
From preserved in Laptop	3.44	68.8	Large Extent
From maintained as E-print	3.04	60.8	Large Extent
Other methods	2.45	49.0	Some Extent

Information retrieved from UGC-INFONET by the respondents

One of the objectives of the study is to find out the extent the retrieved Information from Electronic Information are useful to the user. For this the respondents are asked to answer the questions on a five point scale from 'Very Large Extent' to 'Less Extent'. The responses are scored from 5 to 1.

The mean value of the questions for all 421 respondents is found out, based on which we calculate the mean %age score $\left[\text{MPS} = \frac{\text{MeanScore} \times 100}{\text{Maximumpossiblescore}} \right]$ of each of the purpose.

This score is classified into one of the four groups as 'Less Extent' if the mean % score is less than 35%, 'Some Extent' if the mean % score is between 35 to 50 per cent, 'large Extent' if the mean % score lies in the interval 50 to 75% and 'very large Extent' if the mean % score is above 75%. The result is exhibited in the table 9., the study reveal that the mean %age scores for three purposes such as 'reference for research work', 'preparing study material' and 'Updating knowledge' are above 75% , so Information retrieved for this purpose is 'Very Large Extent'. Purposes like 'Project Work', 'to Write Article', 'preparing seminar/conference papers' and 'other purposes', the mean %age score is between in the interval of 50% to 75% and Information retrieved for this purpose is 'large Extent'.

Table 9 Information retrieved from UGC-INFONET by the respondents

Purpose	Mean	Mean % Score	Extent of the Information retrieved
Reference for Research Work	3.96	79.2	Very Large Extent
Project work	3.55	71	Large Extent
Preparing Study Materials	3.77	75.4	Very Large Extent
To write article	3.53	70.6	Large Extent
Preparing Seminar/Conference Papers	3.75	75	Large Extent
Updating Knowledge	3.9	78	Very Large Extent
Other purposes	2.86	57.2	Large Extent

Satisfaction on Information resources by the respondents

The results shown in the table 10 clearly establish that the respondents are 'highly satisfied' with library Electronic Information like 'E-Journals' and 'E-Theses and Dissertations' as their mean %age score is above 75%. For all other library Electronic Information and services like CDs/DVDs, E-Books, E-Databases, E-Question Bank, Email alert services, OPAC, Institutional repositories, Digital Library services and any other services, the mean %age score is between 50% to 75%, so the level of satisfaction is 'Satisfied'.

Table 10 Satisfaction on Information resources by the respondents

Library E-Resources/services	Mean	Mean % Score	Level of Satisfaction
CDs/DVDs	3.25	64.99	Satisfied
E-Books	3.74	74.73	Satisfied
E-Journals	4.01	80.19	Highly Satisfied
E-Databases	3.65	72.97	Satisfied
E-Theses and Dissertations	3.80	76.06	Highly Satisfied

E-Question Bank	3.25	65.08	Satisfied
Email alert services	3.42	68.41	Satisfied
OPAC (Online Public Access Catalogue)	3.69	73.73	Satisfied
Institutional repositories	3.21	64.13	Satisfied
Digital Library services	3.61	72.26	Satisfied
Any other services	3.23	64.51	Satisfied

7. MAJOR FINDINGS

1. Majority 112 (26.6%) of them were reported from Cochin University of Science And Technology (CUSAT).
2. Majority of respondents 109 (25.9%) are post graduates and 75 (17.8%) of the respondents were qualified PG with NET qualification.
3. Majority 140 (33.3%) of the responded from faculty of science among the selected Six State Universities in Kerala.
4. The Highest mean value for "To borrow Books" (3.86) which was assigned rank one, and second rank given to "To read Journals/periodicals" (3.72).
5. Majority 306 (72.7%) of the respondents are daily using internet among the selected Six State Universities in Kerala.
6. 257 (61%) were getting adequate training for using Electronic resources.
7. The highest mean %age score given to preparing seminar/conference papers and reported "Large Extent."
8. The highest mean to given preferences for reading the full text articles and take them print out as "Large Extent."
9. The highest mean score (79.2) given to Reference for research work and respondents suggested that "Very Large Extent" from UGC@ INFONET.

8. DISCUSSION AND CONCLUSION

The study above discussed about accessing e-journal and e-thesis, use of other Electronic Information need to be improved. The users can have better awareness and use of Institutional Repositories (IR) and other digital library services of the library have to be promoted. Electronic Information always supplements the print resources and it never affects the reading habit of the users. As the Electronic

Information have more advantages than the print resources, their use must be promoted. Instead of searching a particular topic on different websites and databases, there should be a federated search mechanism to allow the users to have simultaneous search in multiple databases. There should be a feedback mechanism from the faculty members and scholars to have good control over the subscription policy of the Electronic resources, as many packages subscribed under through the consortium are underutilized. In the case of Electronic Information subscription, Libraries should have more freedom to select from a wide range of Electronic Information under UGC-INFONET the consortia as suggested by its academic community. Users are of the opinion that lack of technical support, insufficient training programmes and limited numbers of computers etc. are major constraints of accessing e-resources. Libraries are to be taken care of these problems. The Electronic Information can be good substitutes for conventional resources, if the access is fast, and more computer terminals are installed to provide fast access to e-resources. Google is the most widely used search engine for locating Information Electronically. Margan Madhusudhan, (2009) observed that Census of Association of Research Libraries (ARL) to a sample of non-ARL Master's, Doctoral, and Research institutions. Of the 299 Libraries surveyed, 250 surveys were returned for a response rate of 83.6 %. Analysis of the responses emphasizes the number and types of computers available in libraries, Electronic Information in libraries, past and future cancellation decisions and archiving responsibilities. The drastic development in the field of Information and communication technologies (ICT) transformed the Information seeking behaviour of academic community. There is a paradigm shift from using print Information resources to Electronic resources. This study has shed light on the importance of Electronic Information in the improvement of education and quality of research. The users are well aware about the availability of Electronic Information under UGC-INFONET Digital Library Consortium. It emerged as a crucial instrument to deliver up to date Information and helps Information centres in collection developments, preservation and Information retrieval processes. The study pointed out that in order to enhance the better use of Electronic resources, there is need for conducting more awareness as well as training programmes users. There is also the need for federated search mechanism which will enable the users to have simultaneous search in multiple databases.

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