User Perception towards ICT Services and facilities in Government First grade Colleges: A study

Pradeep V Hegde
Assistant Librarian
Institute for Social and Economic Change
Prof. V.K.R.V. Rao Road, Nagarabhavi,
Bangalore-560072
E-mail: pradeep@isec.ac.in

Praveen
Librarian
Govt. First Grade College for Women
Puttur, D.K. District – 574201, Karnataka
E-mail: praveenvogga@gmail.com

Abstract

The study examined the electronic information services in academic libraries of Dakshina Kannada district. A questionnaire was prepared and distributed among 15 UGC accredited government degree college library users of Dakshina Kannada district, Karnataka state. The result of the study disclosed that the academic library users seek diverse information from various sources, both print and non-print. Study found significant difference on opinion with regard to the adequacy of ICT based services and facilities among the different user groups. It found over 42% of the respondents are not happy with the computer and internet facilities provided in government degree colleges.Finally, study suggests providing optimum and satisfactory services to the user community and to improve the electronic information services for its users..

Keywords
Information communication technology, Electronic information services, Information gathering habits, Digital library.
Electronic access
The journal is available at www.jalis.in

Journal of Advances in Library and Information Science
ISSN: 2277-2219 Vol. 10. No.4. 2021. pp.287-293

1. INTRODUCTION

The importance and wide ranging scope of electronic resources for general communication, information retrieval and instructional delivery to support teaching and research activities in tertiary educational institutions is acknowledged worldwide. The mission of libraries is to meet the objectives and purposes of their parent Universities. Libraries have become an indispensable part of University due to outstanding education and the educational system (Sharma 1992). In the present day of the educational system, the teacher teaches the methodology and inspires the student to find detailed information on his / her study from the library resources. This results in the active participation of students in the learning process. This way, today's education is becoming more and more library-oriented than classroom-oriented. The students and faculty seek and use information consistently for their study, learning, teaching, and research.

The quality of education and research in academic institutions plays a prominent role in attaining sustainable and equitable development. Libraries and information centers act as a notable role in teaching and research. The academic libraries impart education and support a more efficient process by developing the resources and providing Information and Communication Technology (ICT) based services. Nowadays, curriculum education has become more library-centered education rather than the classroom-centered one. The students get most of their educational information resources in the library, and their practical activities also start with the library. The libraries are rendering technology-based services. Due to ICT, they manage collection and development activities very well. Subscription toE-journals, E-databases, and procuring educational CDs/DVDs, digitizing institutional resources in the library have supported research scholars and faculty members in accessing the right information at the right time. Today, digital technologies bring about revolutionary changes in how the information is stored, retrieved, and disseminated. These have a profound impact on the ways academic libraries function and open up electronic access to information for thousands of users. The academic libraries over the years, has undergone tremendous changes, assuming new dimensions influenced by the technology-driven applications. Instead of building a collection of books, the library evolves into an electronic portal and subject gateways to a growing global collection in digital content. The library's holdings can be accessed by the research scholars and faculty members when they needed. Most

of the degree college libraries in Karnataka have Internet facilities and provide almost free access to research scholars and faculty. The observation reveals that substantial use of e-resources in allied subjects includes E- journals, databases, reports, discussions, curricula, reading lists, information 'brochures' etc. Faculty and research scholars always rush to the library to get the required information.

2. LITERATURE REVIEW

The detailed review of research studies helps to understand what has already been done and to determine the research gaps occurred in the study area concerned. Further, literature review helps to detect connections and relations between different research results in the area of electronic information resources and dissemination. There are quite a number of relevant studies have been carried out on use of e-resources by lecturers, research scholars and students of different disciplines. An attempt is made to review the studies on E-Resources, CD-ROMs, Online and Offline databases of different disciplines, published in books, national/international journals, and seminar/conference proceedings. According to Sharma (2009) Information Technology (IT) plays an essential role in academic libraries. The presence of quality IT resources affects the status of the library. His study describes the availability of IT infrastructure and online resources in dental college libraries of the state of Haryana, India, and highlights the causes, problems, and solutions in application of IT. Kumar and Singh (2009) observed the library professionals' responsibility in providing ICT based services to their users. The study noticed that librarians need to be more equipped to provide regular user education programmes to their users in better utilization ICT facilities. Timmers, Caroline F (2010) conducted a study with the aim of understanding the effect of information communication technology as an instrument for information-seeking behaviour. The study made effort to understand the use of search engines in their day today life. Study results were exposed the widespread use of Google by undergraduates seeking information. Most of the undergraduates are relying on basic searches to find the answers to their questions and that they find it difficult to identify terms or keywords. Further, study suggests that proper search strategies are important to retrieve quality information and to save the valuable time of user for a study assignment. Kumar (2012) conducted a study on textile college library users. The study explored the ICT facilities available in Textile college libraries under study and found that libraries have sophisticated IT infrastructure. Further, the textile institutes are giving more importance to build advance communication technologies for the better information services. The study by Harris (2013) conducted a comparative study of digital library service and traditional library services. The study found that, the library users are more interested towards accessing information in digital form than print media. Hence, study suggested advancing the IT inftrasture to provide better information services its user community.

3. SCOPE AND LIMITATION OF THE STUDY

The research study titled 'User Perception towards ICT Services and facilities in Government First grade Colleges' is an in-depth study to understand government first grade students' perception and expectations towards ICT service and facilities available in their respective colleges. The study is limited to under graduate students of 15 government first grade colleges located in Dakshina Kannada district of Kamataka state.

4. OBJECTIVES OF THE STUDY

The main purpose of this study is to investigate the awareness, level of use of electronic resources, the perceived impact of use of electronic resources on the academic productivity of teachers researchers and students problems faced by researchers while using electronic resources

The specific objectives of the study are:

1) To identify the users awareness and use of e-resources academic libraries.
2) To study the methodologies and mode of applied by the users to search online information in the colleges under study.
3) To evaluate the usefulness and adequacy of ICT infrastructure provided by the respective libraries under study.
4) To know the level of satisfaction of information retrieved through electronic resources.
5) Finally, to suggest measures to improve the current system.

5. METHODOLOGY

A structured questionnaire was designed using Google form and distributed among the faculty members and students of selected first grade colleges of Dakshina Kannada district of Karnataka state. As a follow-up,

we did carry out personal and telephonic interactions, based on the inputs acquired from the questionnaire administered.

6. DATA ANALYSIS AND DISCUSSION

Random sampling technique was used to generalise the study result. The questionnaire was distributed among faculty members and students of 15 first grade collages of Dakshina Kannada district. The questionnaire was distributed among 596 respondents and received 397 responses with the response rate of 66.61%

6.1 PROFILE OF RESPONDENTS

The above Table 1 highlights that 256 (64.50%) are male respondents and 141 (35.50%) are female respondents participated in the survey. The study observed that male respondents are more in the government first grade colleges of Dakshina Kannada District, Karnataka.

6.2 MODE OF ACQUIRING CURRENT INFORMATION

Access to information, especially academic information, is possible through various means. Print journals are the carriers of current research output. Their online versions are now available in plenty. Another means to get current information is by attending seminars and conferences. Even personal communication with the peer group helps in gathering academic information. People resort to any of these or some times more than one means to acquire information. The means by which the sample under the current study acquires information was analysed against the variable gender and is presented in the form of table 2.

Table 2: Mode of acquiring current information x Gender Cross tabulation

Mode of acquiring current information	Gender		Total
	Male	Female	
Through current issues of print journals	**105**	**61**	**166**
	39.47	43.71	41.01
Through online journals	**50**	**31**	**81**
	20.68	23.84	21.82
Attending Seminars & Conferences	**12**	**6**	**18**
	4.51	3.97	4.32
Internet / E-mail alerts	**72**	**24**	**96**
	27.07	15.89	23.02
Through CAS / SDI	**3**	**7**	**10**
	1.13	4.64	2.40
Personal communication	**14**	**12**	**26**
	7.14	7.95	7.43
Total	**256**	**141**	**397**
	100.00	100.00	100.00

The study has been conducted by surveying a sample of 397 users of government first grade colleges South Kanara district. The distribution of population and respondents by designation is given bellow.

Table 1: Gender-wise distribution of respondents

Gender	Questionnaire Distributed	Response Received	Percentage
Male	383	256	64.5
Female	213	141	35.5
Total	596	397	100

The analysis of the data in the cross tabulation shows that the gender has not been influenced much on the mode of acquiring current information. The majority i.e. 39.47% of male respondents and 43.71% of female respondents use the current issues of print journals to acquire current information in their subject area. In similar terms, almost equal percentages of male and female respondents make use of online journals. As much as 20.68% of male and 23.84% female respondents belong to this category. Seminars and conferences, library services like CAS or SDI form the mode of acquiring of current information to a very few respondents. But a significant difference can be found in the case of internet and e-mail alerts as a source of current information to the two genders. 27.07% of male respondents opine that they depend on the internet or e-mail alerts as their source of current information, only 15.89% of female respondents belong to their group. As a whole it can be seen that gender has no influence on the mode of acquiring current information by the respondents.

6.3 AVAILABILITIES OF COMPUTERS AND INTERNET FACILITY

Present day libraries are in a stage of transition from the traditional to hybrid libraries which collect and organise digital documents. As they deal with digital

documents the related infrastructure is essential. The major components in the digital environment are computers and internet facility. Hence the number of computers available with internet in a library at the disposal of users is a criterion to show that how far the library has evolved to suite the present scenario. It is not even the number of computers but the standard of the equipment also matters. Users should be made available the required number of computers to handle digital information sources.

The data on the opinion of users on the availability of computers with internet facility in the library was cross-tabulated against gender and is presented as table 3.

Table 3: Computer with Internet facility in the library X Gender Cross tabulation

Computers in the library	Gender		Total
	Male	Female	
Strongly agree	**34**	**19**	**53**
	12.78	12.58	12.71
Agree	**17**	**12**	**29**
	6.39	7.95	6.95
Disagree	**45**	**27**	**72**
	18.92	19.88	19.27
Strongly disagree	**65**	**26**	**91**
	26.44	19.22	22.82
No opinion	**95**	**57**	**152**
	39.47	44.37	41.25
Total	**256**	**141**	**397**
	100.00	100.00	100.00

The table reveals that the majority are having a very negative opinion on this issue. It can be seen that only 82 out of 397 respondents agree to the fact that there is adequate number of computers with internet in the library. The rest of the respondents include 152 who have not responded to this query. Altogether they make group of 315 users who are having a negative opinion. If the users are satisfied they would have responded to this query positively. It is 80% and above who are having negative opinion on the adequacy of computers and networking facility available in the library. It can be seen that almost equal percentages of both genders agree positively on this aspect. As much as 19.17% of male and 20.53% female respondents agree to this factor. The data shows a dismal picture of ICT infrastructure in the libraries under study.

6.4 ICT INFRASTRUCTURE IN LIBRARY

The analysis of the data reveals that the libraries under the study lack the required IT infrastructure. They do not come up to the expectations of the users. Another important factor in ICT infrastructure is the networked environment. This helps to maintain intranet services; proxy server based services, e-mail facility in the campus and also enables to have wi-fi facility in the campus. A network in a campus in the form a local area network (LAN) helps mostly in providing library services and therefore the modern academic environments are equipped with LAN facility. Hence, the users under the survey were asked to provide their opinion on the adequacy of ICT facility in the campus. The answers to the question on this aspect was analysed against gender and is presented in the form of table 4

Table 4: ICT Facility X Gender Cross tabulation

Adequate ICT Facility	Gender		Total
	Male	Female	
Strongly agree	**65**	**46**	**111**
	24.44	30.46	26.62
Agree	**26**	**15**	**41**
	9.77	9.93	9.83
Disagree	**50**	**30**	**80**
	18.80	19.87	19.18
Strongly disagree	**65**	**34**	**99**
	24.44	22.52	23.74
No opinion	**50**	**16**	**66**
	20.56	15.22	19.62
Total	**256**	**141**	**397**
	100.00	100.00	100.00

The data in table 4 reveals that only 36.45% of the sample does agree to the fact that the ICT facility of the campus is adequate enough. As much as 42.92% of the respondents are of opinion that the ICT facility in their campus is not adequate. The study clearly notices that government first grade colleges are lacking in basic ICT infrastructure.

6.5 USE OF INTERNET SERVICES

Libraries are the institutions which are most affected by the internet. People believe that they can get any information on their desktops because of the internet. Libraries have also adapted to these tidal changes and incorporated digital and online

resources into their kitty. Libraries provide facilities to browse and also train to browse the internet. But to know about the purpose with which they make use of the library some data was collected based on a question. This data was tabulated against gender and is presented in Table 5.

Table 5: Purpose of using the Internet facility

Purpose of using the Internet facility	Gender		Total	Chi-Square	df	Sig
	Male	Female				
General Browsing	201	120	321			
	77.44%	84.11%	79.86%	151.08	1	0
To use E-mail facility	18	11	29			
	7.52%	8.61%	7.91%	2.612	1	0.106
For Chatting	10	3	13			
	4.14%	2.65%	3.60%	110.85	1	0
Browsing e-journals	27	7	34			
	10.90%	4.64%	8.63%	0.022	1	0.883

It reveals that the majority use the internet facility for general browsing only. The next larger group is those people who are browsing e-journals. Almost 80% of the total sample uses this facility for general browsing. Gender-wise division shows that 84% of females and 77% of males dominate in using the facility for general browsing. Further, the result of chi-square test indicates that there is a significant difference among the gender wise responses with regard to purpose of using the internet facility.

6.8 INFLUENCE OF ICT ON INFORMATION SEEKING HABITS

The development of networked environments along with digital information has influenced the way people seek information. The barriers of time and distance, sometimes even language are removed from the communication scenario and have influenced information seeking in a lot of ways. Searching for information has become very easy with the development of digital technology. A question was asked on this and the data is presented in the form of Table 6.

The gender-wise analysis of the influence of IT on the information seeking habit reveals that 250 respondents of the 397, i.e., 62.35% indicated that information technology made it easy to locate the right information at right time. In this the male respondents are dominating the female respondents. As much as 165 (63.90%) male and 85 (59.60%) female respondents opined the same. Further, it is interesting to note that 102 of the 397 respondents have mentioned information technology has made no influence on their information seeking habit. It was further tested using the Chi-Square test to find out whether the two genders vary in their opinion that IT has influenced their information seeking behaviour. The result is provided in Table 7.

Table 6: Influence of IT on Information seeking habit

Gender	Influence of ICT on Information seeking habits			Total
	Made easy to locate information	Made difficult to locate information	No difference	
Male	165	33	58	256
	63.90%	12.40%	23.68%	100%
Female	85	12	44	141
	59.60%	7.94%	32.45%	100%
Total	250	45	102	397
	62.35%	10.79%	26.85%	100%

Table 7: Chi-Square Test for influence of IT on information seeking behaviour.

	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-	4.8171	2	0.0899

Square			
Likelihood Ratio	4.8354	2	0.0891
Linear-by-Linear Association	2.1436	1	0.1432
N of Valid Cases	397		
A 0 cells (.0%) have expected count less than 5. The minimum expected count is 16.29.			

It found, for 2 degrees of freedom, the $\chi 2$ value computed was 0.0899. The critical value for $\chi 2$ for 0.05 level of significance and 2 degrees of freedom is 5.99. As the computed value was greater than the critical value, the goodness to fit test was upheld. Hence the Chi-square test proved that the two genders do not vary significantly in their opinion that IT has influenced their information seeking behaviour.

7. FINDINGS AND SUGGESTIONS

In the light of the facts gathered and analysed, the researcher made an attempt to elucidate the major findings, suggestions to improve the ICT services and facilities in the Government first grade colleges of South Kanara district. It is remarkable to note that students seek information for updating their knowledge in addition to preparing course work or class notes. Study noticed a significant difference in the case of internet and e-mail alerts as a source of current information to the two genders. The users have also opined that they are more concerned about accuracy, easy accessibility, relevancy and usefulness of the information they get while searching for information. There was significant difference in opinion with regard to the LAN facility among the different user group. Study noticed that lack of ICT infrastructure is the major barrier to access e-resources among all categories of users. Further, it reveals that the majority use the internet facility for general browsing only. The next larger group is those people who are browsing e-journals but the majority of the respondents said that ICT has influenced on their information seeking habits. Finally, the study suggest librarians that information professionals must be aware of how and what type of information needed by their academic community and the modern digital libraries, interfaces, and web database sources are also important factors that contribute in a big way to developing a students' in getting right information at right time.

8. CONCLUSION

A well-equipped library with up-to-date collection, organized on modern lines is a sine-quo-non for study and research in academic libraries. Hence, the study has revealed that there is an indispensible role for a library to play as an information centre with efficient library services with a professional librarian to fulfil the users' curricular research and informational requirements. E-resources, internet, and online information databases are becoming a valuable asset in any library and information centre. However, in addition to this it is important to note that in this IT and networked era a significant percentage of respondents also need and depend on the print resources in their libraries. The study has revealed that libraries need to reorient and provide both online and offline library services by conducting periodic surveys and studies to fulfil the gap between the perception and the satisfaction level among the users in this era of networking and knowledge society. To conclude, information is an important asset in any educational process and today's society. Hence, the LIC'S in the colleges under study need to reorient ICT facilities and services. Such a move will help to provide optimum and satisfactory services to the user community and also in their information seeking behaviour. It will certainly enhance and improve the quality of library and information services.

REFERENCES

[1.] Sharma, D. (1992). Book Reviews. *International Studies*, *29*(1), 101–104. https://doi.org/10.1177/002088179202900101 1

[2.] Sharma, C. (2009). Information technology and online resources in dental college libraries of Haryana. *Library Philosophy and Practice*, *35*(11), 326-330.

[3.] Kumar, V. & Singh, J. (2009). Use of CD-ROMs and internet resources by the students of Jaypee University of information technology, Himachal Pradesh. *PEARL-A journal of library and information science*, 3(4), 46-52.

[4.] Timmers, C. F., & Glas, C. A. W. (2010). Developing scales for information seeking behaviour. *Journal of Documentation*, 66(1), 46-69.

[5.] Kumar, P. (2012). Information communication technology in textile engineering college libraries of Haryana, India. *Information and knowledge management*, 1(3), 7-16.

[6.] Harris, M. W. (2013). What's a digital library?. Retrieved February 2014, from http://next-

nexus.info/writing/infostudies/digital_libraries.php

[7.] Hemminger, B. M., & Lu, D. (2007). Information seeking behavior of academic scientists. *Journal of the American Society for Information Science and Technology, 58*(14), 2205-2225.

[8.] Hema, R., Nagarajan, M., & Vanathi, B. (2013). A study of use of ICT based resources and services by the faculty members, Reseach Scholars and PG students of arts and science colleges in union territory of Pudicherry. *Journal of Advances in Library and Information Sciences,* 2(1), 1-6.

[9.] Khan, S. A. (2011). Information needs and information seeking behaviour: A survey of college faculty at Bahawalpur. *Library Philosophy and Practice*.

[10.] Sheela, V., & Shivaram, J. (2011). Information seeking behaviour of learners in Open University libraries: Issues and challenges. *SRELS journal of Information management, 48*(1), 91-100.

[11.] Siddiqui, S. (2011). The information seeking behaviour of B.Tech and M.B.B.S students in Lucknow: A comparative study. *International research Journal of Library and Information Science, 1*(1), 55-70.

[12.] Singh, I., & Lahiri, R. (2004). Information seeking behaviour of health care paraprofessionals: A case study. *Indian Jour. Inf Lib. & Soc, 17*(3-4), 156-163.

[13.] Shokeen, A., & Kaushik, S. (2002). Information seeking behaviour of social scientists of Haryana Universities. *Library Herald, 40*(1), 28-35.

[14.] Kumar, D. (2010). An analytical study of information seeking-behaviour among agricultural scientists in Sardar Vallabhbhai Patel University of Agriculture and Technology. *International Journal of Library and Information Science, 2*(8), 164-168.

[15.] Sheeja, N. K. (2010). Science vs social science: A study of information-seeking behavior and user perceptions of academic researchers. *Library Review, 59*(7), 522 – 531.

[16.] Sarala, K. R., & Varghese, M. (2006). Information needs and use pattern of agricultural scientists, a study made in the college of Agriculture, Thiruvananthapuram. *Kelpro Bulletin, 10*(2), 43-54.