

UTILIZATION OF INFORMATION AND COMMUNICATION TECHNOLOGY AT PHARMACY COLLEGE LIBRARY SERVICES IN SOUTH INDIA: A STUDY

Dr. K. Vijayakumar,

Assistant Professor (SG).

DLIS, Annamalai University.

Email ID: dr.vijay_1973@rediffmail.com

Dr. B. Mahadevan,

UGC-Post Doctoral Fellow,

DLIS, Annamalai University.

Email ID: dmaha32@gmail.com

ABSTRACT

Today libraries are growing up in a digital world and provide variety of hi-tech tools for access e-information from the library. This study presents the impact of Information Communication and Technology, ICT in satisfaction among pharmacy library professionals in DR.MGR Medical University. The present study targeted 24 pharmacy professionals in library services. It is found that majority of the respondents were required training on latest developments of ICT in pharmacy library services.

Keywords: *ICT, Digital Library, E-Resources, pharmacy Library, Library Networking, LIS professionals, ICT skills.*

1. INTRODUCTION

Health development is a pre-requisite to socio-economic development. Over the past three decades, Iran has taken significant steps to improve the quality of health care delivery and medical education (Azizi, 2009). On the other hand in India, enormous efforts have been made for the development of medical education and health care. As a result, there have been rises in the number of medical, dentistry, and pharmacy colleges and more numbers of student admissions in

Studies on information technologies in India indicate that computerization of library systems and services in India started in the late 1970s and resumed after an apparent gap in 1980s. However, this trend has accelerated in the last decade especially in institutions of higher education due to the increased number of users, greater demand

Academic medical libraries contribute to educational and research activities in many ways through exploiting IT and electronic information resources such as e-books; electronic/online journals; electronic databases and web based services. Based on Haneefa's (2007) viewpoint, while

all programmers of medical sciences and teaching staff in both countries in recent decades. The increased number of users coupled with the growing challenges posed by exponential proliferation of information caused medical libraries to adopt information and communication technologies for information input, storage, organization, processing, retrieval and dissemination.

for the use of library materials within and outside the libraries, increase in the amount of materials being published, changes in the nature of reading material and the development of new and cheaper computers (Safahiafahieh and Asemi, 2010; Farajpahlou, 2002; Ramzan, 2004)

libraries automate their library management activities and procure expensive electronic resources, they may not be optimally used. This is the main concern of libraries around the world. There are a lot of reasons for this state of affairs, like insufficient funds.

2. REVIEW OF LITERATURE

Nwachukwu (2007) identified that ICT application of computers and other technologies to the acquisition, organization, storage, retrieval and dissemination of information. This study unveils the

Kattimani and Ramesh (2013) stated that Compared to all library professionals have more skills on library automation software modules, various operating systems, internet related skills and web

Javed Khan (2016), Computing technology, communication technology, and mass storage technology are some of the areas of continuous development that reshape the way libraries access, retrieve, store, manipulate, and disseminate information to users. ICT has impacted on every sphere of academic library activity especially in the form of the library collection development strategies, library building and consortia. Information and Communication Technology (ICT) has brought unprecedented changes and

Dr. Nitin Kude (2016), rapidly developing ICT are creating new opportunities and challenges for traditional librarianship, it changes the library into digital and virtual with global approach. ICT has become the first need for the smart

challenges and opportunities among the librarians to apply modern technologies in their libraries and to provide the effective information series to the research communities.

designs. The majority of the professionals are facing financial problems, overload of work and negative attitude of the higher authority in acquiring ICT skills.

transformation to academic library and information services, conventional LIS such as OPAC, user services, reference service, bibliographic services, current awareness services, document delivery, interlibrary loan, audio visual services, and customer relations can be provided more efficiently and effectively using ICT, as they offer convenient time, place, cost effectiveness, faster and most-up-to-date dissemination and end users involvement in the library and information services process.

librarianship. Change is the only constant and should be accepted by the librarians so as to provide quality services, round the clock to endless users by breaking the boundaries of libraries.

3. METHODOLOGY

This study attempts to examine the impact of information and communication technology on information access pattern of faculty members in pharmacy colleges in south India. It is primarily a fact-finding venture in terms of identification of factors relating to extent of access to information, services provided by the library, purposes of library visit, utilization of pharmacy software in research work, extent of dependence on formal and informal sources

of library information and extent of utilization of information communication technology for information storage and retrieval. To identified facts are cross tabulated with the institutional background and designation background of the respondents. Thus, it gives an analytical orientation to this study and the design of this study is partly exploratory in nature and partly analytical in nature.

4. OBJECTIVES

In order to pursue this study, the following objectives are framed in accordance with the scope of this investigation:

1. To analyse the respondents' time duration for searching information and extent of access to information through ICT tools;
2. To evaluate the respondents' purpose of library visit;
3. To identify the respondents views on services provided by the pharmacy library;
4. To find out the respondents' extent of dependence on various sources of information;

5. HYPOTHESES

The following hypotheses are formulated on the basis of content and coverage of framed objectives and they are tested by employing appropriate statistical tools:

1. There is a significant association between occupation status of the respondents and their time duration for searching information and extent of access to information through ICT tools.
2. There is a significant inter institutional variation with respect to respondents' purpose of library visit.
3. There is a significant association between socio economic status of the respondents and their views on services provided by the pharmacy library.
4. There is a significant association between socio economic status of the respondents and their extent of dependence on various sources of information.

6. SAMPLING

The whole area of the study, Tamilnadu and Puducherry, This has been divided into four zones, namely north, east, west and south zones, each zone consisting six colleges. The researcher selected 100 respondents from each zones through mailed questionnaire survey. Totally 400

respondents were take into consideration and 40 of there were negligible due to non-response of the questionnaire. Thus totally 360 respondents are considered for the sample study. The sampling of study is based on purposive random sampling.

7. RESULTS AND DISCUSSION

This chapter deals with the analysis of data and interpretation of data and testing of hypothesis. In order to realize the objectives stated in chapter III, a questionnaire was framed by the researcher and was distributed to the respondents of

twenty-four pharmacy colleges in Tamilnadu and Puducherry state in south India. The completed questionnaires were collected and analyzed. Two-way ANOVA, 't' test were to analyze and interpreted the data.

Table-1
Zone-wise respondents views on services provided by the library

Service	North zone	South zone	East zone	West zone	Average
Access to full text database	3.94	3.63	3.99	4.46	4.01
Availability of IR publications	3.48	3.45	3.75	4.26	3.73
Bibliographical databases access	3.38	2.98	3.51	4.26	3.54
Recommendation for acquisition by users	3.02	2.42	3.09	3.86	3.10
Scanning of documents and forwarding	3.06	3.61	2.93	3.19	3.20
Content page services	2.83	3.06	2.54	2.79	2.81
CD-ROM services	3.76	4.61	3.75	4.01	4.04
CD tutorials	2.66	3.38	1.82	2.59	2.62
Others	2.61	2.76	2.07	2.44	2.48
Average	3.19	3.32	3.05	3.54	3.28

Source: Computed from primary data

TWO WAY ANOVA

Source of Variation	SS	df	MS	F	F crit
Rows	10.91976	8	1.364969	8.441805	2.355081
Columns	1.167675	3	0.389225	2.407205	3.008787
Error	3.8806	24	0.161692		
Total	15.96803	35			

Data presented in *Table 1* indicate the zone wise respondents' views on services provided by the library. It can be assessed with the help of 9 factors on a 5 point scale. These include access to full text database, availability of IR publications,

It was observed that out of the total 9 types of services provided in a library, the respondents rate first order priority to CDROM service provided in the library. In this context, they secured a mean score 4.04

The zone wise analysis reveals the following facts. The west zone respondents take the first position with respect to overall

bibliographical databases access, and recommendation for acquisition by users, scanning of documents and forwarding, content page services, CD-ROM services, CD tutorials and others.

on a 5 point rating scale. The respondents have second order priority of library service with respect to access to full database service.

services provided by the library as they secured a mean score 3.54 on a 5 point rating scale. The south respondents rank the

second position with respect to overall views on services provided by the library as they secured a mean score 3.32 on a 5 point rating scale. The north zone respondents take the first position with respect to overall services provided by the library as they

The Anova two ways model is applied for further discussion. At one point, the computed Anova value is 8.44, which is greater than its tabulated value at 5 percent level of significance. Hence, there is a significant variation among the chosen zones with respect to respondents' overall library services. At another point, the

As is expected and can seen from the above discussion that respondent's rate high priority of library services towards CD-

secured a mean score 3.19 on a 5 point rating scale. The east zone respondents are pushed down to the last position with respect to overall services provided by the library as they secured a mean score 3.05 on a 5 point rating scale.

computed Anova value is 2.41, which is lesser than its tabulated value at 5 percent level of significance. Hence, variation among the attributes relating to respondents' overall views on services provided by the library is statistically identified as insignificant.

ROM services and access to full text database.

Table-2

Education-wise respondents views on services provided by the library

Service	Doctorate	Post graduate	Under graduate	Average
Access to full text database	4.46	3.94	3.63	4.01
Availability of IR publications	4.26	3.48	3.45	3.73
Bibliographical databases access	4.26	3.38	2.98	3.54
Recommendation for acquisition by users	3.86	3.02	2.42	3.10
Scanning of documents and forwarding	3.61	3.06	2.93	3.20
Content page services	3.06	2.83	2.54	2.81
CD-ROM services	4.61	3.76	3.75	4.04
CD tutorials	3.38	2.66	1.82	2.62
Others	2.76	2.61	2.07	2.48
Average	<i>3.81</i>	<i>3.19</i>	<i>2.84</i>	<i>3.28</i>

Source: Computed from primary data

TWO WAY ANOVA					
Source of Variation	SS	df	MS	F	F crit
Rows	8.147667	8	1.018458	21.33083	2.591096
Columns	4.280067	2	2.140033	44.82136	3.633723
Error	0.763933	16	0.047746		
Total	13.19167	26			

Data presented in *Table 2* indicate the education wise respondents' views on services provided by the library. The doctorate level educated respondents take the first position with respect to overall services provided by the library, as they secured a mean score 3.81 on a 5 point rating scale. The post graduate respondents

The Anova two way model is applied for further discussion. At one point, the computed Anova value is 21.33, which is greater than its tabulated value at 5 percent level of significance. Hence, there is a significant variation among the chosen Education groups with respect to respondents' overall library services. At

It is clearly from the above discussion that there is a correspondence between education status of the doctorate

rank the second position with respect to overall views on services provided by the library as they secured a mean score 3.19 on a 5 point rating scale. The under respondents are pushed down to the last position with respect to overall services provided by the library as they secured a mean score 2.84 on a 5 point rating scale.

another point, the computed Anova value is 44.82, which is greater than its tabulated value at 5 percent level of significance. Hence, variation among the attributes relating to respondents' overall views on services provided by the library is statistically identified as significant.

respondents and their perceptions on library services.

Table-3
Designation-wise respondents Views on services provided by the library

Service	Professors	Associate Professors	Assistant Professors	Average
Access to full text database	4.46	4.26	3.31	4.01
Availability of IR publications	4.42	4.05	3.65	4.04
Bibliographical databases access	3.96	3.89	2.77	3.54
Recommendation for acquisition by users	3.88	3.77	1.65	3.10
Scanning of documents and forwarding	3.76	3.52	2.32	3.20
Content page	3.46	3.26	1.71	2.81

services				
CD-ROM services	3.36	2.11	1.97	2.48
CD tutorials	3.59	2.42	1.85	2.62
Others	3.89	3.77	3.53	3.73
Average	3.86	3.45	2.53	3.28

Source: Computed from primary data

TWO WAY ANOVA					
Source of Variation	SS	Df	MS	F	F crit
Rows	8.147667	8	1.018458	6.442767	2.591096
Columns	8.411756	2	4.205878	26.60638	3.633723
Error	2.529244	16	0.158078		
Total	19.08867	26			

Data presented in **Table 3** indicate the designation wise respondents' views on services provided by the library. The designation wise analysis reveals the following facts. The professor respondents take the first position with respect to overall services provided by the library as they secured a mean score 3.86 on a 5 point rating scale. The Anova two way model is applied for further discussion. At one point, the computed Anova value is 6.44, which is greater than its tabulated value at 5

It is known from the above discussion that professor respondents take the first position with respect to their overall

percent level of significance. Hence, there is a significant variation among the chosen designation groups with respect to respondents' overall services provided by the library. At another point, the computed Anova value is 26.6, which is greater than its tabulated value at 5 percent level of significance. Hence, variation among the attributes relating to respondents' overall services provided by the library is statistically identified as significant.

services provided by the library and the assistant professor respondents is the last.

Table-4

Sex-wise respondent's views on services provided by the library

Service	Male	Female	Average
Access to full text database	3.71	4.31	4.01
Availability of IR publications	4.43	3.65	4.04
Bibliographical databases access	4.31	2.77	3.54
Recommendation for acquisition by users	4.55	1.65	3.10
Scanning of documents and forwarding	4.08	2.32	3.20
Content page services	3.91	1.71	2.81
CD-ROM services	2.99	1.97	2.48
CD tutorials	3.39	1.85	2.62
Others	3.93	3.53	3.73
Average	4.03	2.53	3.28

Source: Computed from primary data

t calculated value - 3.74 df = 8 t tabulate value = 1.86

Data presented in **Table 4** indicate the sex wise respondents' views on services provided by the library. The male respondents take the first position with respect to overall services provided by the library as they secured a mean score 4.03 on

The t test is applied for further discussion. The computed t value is 3.74, which is greater than its tabulated value at 5 percent level of significance. Hence, there

It is clearly from the above discussion that male respondents take the first position with respect to their overall

a 5 point rating scale. The female respondents take the first position with respect to overall services provided by the library as they secured a mean score 2.53 on a 5 point rating scale.

is significant difference between male and female respondents with respect to their overall services provided by the library.

services provided by the library and the female respondents is the second.

8. FINDINGS

The findings of the respondents' *views on library services offered by library staff* indicate the following facts.

- ❖ Majority of the north zone respondents realize the excellent computer and server services, photocopying services and internet and intranet services offered by the library staff.
- ❖ Majority of the doctorate level educated respondents realize the excellent computer and server services, photocopying services and internet and intranet services offered by the library staff.
- ❖ Majority of the assistant professor respondents found excellent satisfaction towards computer and server services, telecommunication and its facilities and digitalization services offered by the library staff. Majority of the associate professor

found excellent satisfaction towards microfilm and microfiche services, internet and intranet services and online database and E-archive and journals services offered by the library staff.

- ❖ Majority of the female respondents found excellent satisfaction towards computer and server services, telecommunication and its facilities and digitalization services offered by the library staff. Majority of the male respondents found excellent satisfaction towards microfilm and microfiche services, internet and intranet services and online database and e archive and journals services offered by the library staff.

9. CONCLUSION

The rise of ICT has repositioned the frontiers of pharmacy Library resources, process, and services as well as expectations of the users. And most of the Libraries have still not implemented the Open access repository of their own i.e. the trend is quickly approaching the developing

countries. Application of ICT in pharmacy college libraries ensures library services round the clock, remote access to high – demand or restricted materials for multiple concurrent users. More efforts by the librarians are needed to educate users to effectively use the e-Resources to their

institutions. And as per the research hypothesis its prove that the ICT pharmacy faculty members and librarians have

excellent experience in using ICT based services.

10. REFERENCES

- 1) Haneefa M (2007). Application of information and communication technologies in special libraries in Kerala (India) Lib. Rev., 56(7): 603-620.
- 2) Ramzan, M, Singh D (2009). Status of information technology applications in Pakistani libraries. Electro. Lib., 27(4): 573-584.
- 3) Safahieh H, Asemi A (2010). Computer literacy skills of librarians: A case study of Isfahan University Libraries, Iran. Electro. Lib., 28(1): 89-99
- 4) Science. 5(2): 31-42.
- 5) N.Tamilselvan, N.Sivakumar and Dr.R.Sevukan.,(2012). "Information and Communications Technologies (ICT)", International Journal of Library and Information Science (IJLIS), Volume 1, Issue 1, 2012, pp. 45 - 54, ISSN Print: 2277 - 3533, ISSN Online: 2277 - 3584.
- 6) Kumar,K., (2013). Knowledge on ICT Skills among LIS Professionals of Engineering Institutions of Andhra Pradesh State: A Survey. DESIDOC Journal of Library & Information Technology, Vol. 33, No. 6, November 2013, pp. 480-487
- 7) Anup Singh(2015). "ICT and its Impact on Library and Information Services: A Case study of Kendriya Vidyalaya Libraries". *International Journal of Science and Research (IJSR)* ,Volume- 4, Issue 1, January 2015:pp 754-770.
- 8) Dr. Javed Khan(2016). "Impact Of Information Communication Technology On Library And Its Services." *International Journal Of Research – Granthaalayah(IJRG)*, Vol.4 (Iss.9): September, 2016:pp 97-100.
- 9) Dr. Nitin Kude (2016). "Use of ICT for the Information Services and Smart Librarianship." *International Journal Of Innovative Research & Development (IJIRD)*, Vol.5 ,Issue. 2, January, 2016:pp376-379.