

USER PERCEPTIONS AND UTILIZATION OF LIBRARY AND INFORMATION SERVICES OF INFORMATION CENTERS IN NAGPUR CITY

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Abstract

The user study has been conducted in Library and Information Centers (LICs) of Nagpur City. Total of 18 LICs were identified for user study. In each centers, random sample of 20 users has been conducted in Nagpur. Total of 360 questionnaires were distributed to various Information Centers in Nagpur City, out of which, 258 questionnaires were received. The questionnaire was designed to obtain data about the frequency of use of Library & Information Services; use of offline-online databases, computerized services, use of internet, user satisfaction and feedback mechanisms in Library and Information Centers. Based on the analysis observations and suggestions were drawn. This paper is outcome of the Research work for Ph.D in Library and Information Science submitted to RTMNU, Nagpur in the year 2008.s

Keywords : Users study, Users perception, Library and Information Centers, Nagpur

Introduction

The essential components in the library and information system are documents, users and Library personal. It has often complained that the information scientist had neglected the user and his information needs. One of the main goals of any information system is to provide pinpointed, exhaustive and expeditious information service to its users. In order to achieve this goal, various types of recorded information are gathered in information centers and qualified personnel are recruited to established purposive contact between the users and the information embodied in variety of sources of information.” Users Study” comprises the study of people’s need and the use of information. Users Study may be defined as a “systematic study of information requirements of users in order to facilitate meaningful exchanges between information systems and users”.

The reasons for conducting various user studies are

- 1) To identify the actual strengths and weakness of Library resources and services.
- 2) To identify the levels and kinds of user needs.
- 3) To identify the limitations or problems which seem to discourage the use of the Library.
- 4) To identify the level of involvement or participation of faculty and students in the Library programme.
- 5) To improve the organization and planning for Library services at both the local and national levels.
- 6) For evaluating Information Systems and Networks.

Techniques of User Studies

The important techniques that are helpful in carrying user studies are –

- 1) Questionnaire and interview
2. Observation
3. Case study
4. Query analysis
5. Profile analysis
6. Delphi technique
7. Critical incident technique

A user study was conducted to measure Library quality on the measures of user's needs, expectations and satisfaction with Library services, facilities, collection and staff.

Table- 1 Distribution of User Questionnaires to Information Centers of Nagpur

S. N.	Information Centers	Questionnaire Distributed	Questionnaires Received
1	AnSI	20	15(75%)
2	ArSI	20	15(75%)
3	CICR	20	16(80%)
4	GSI	20	14(70%)
5	HCJL	20	18(90%)
6	IBM	20	18(90%)
7	MECL	20	14(70%)
8	MRRSAC	20	1(75%)
9	NADT	20	14(70%)
10	NBSS	20	19(95%)
11	NCDC	20	19(95%)
12	NEERI	20	--
13	NFSC	20	15(75%)
14	NRCC	20	19(95%)
15	PIS	20	--
16	RRSSC	20	18(90%)
17	VNIT	20	14(70%)
18	WCL	20	15(75%)
	Total	360	258
	Percentage	100 %	71.66 %

Table- 1 shows the distribution of questionnaires to users of Information Centers of Nagpur. Total 18 LICs are identified in Nagpur. As a sample survey 20 questionnaires were distributed to 18 LICs to assess these LICs and to know the user's requirement. Over all 360 questionnaires were distributed out of that 258 questionnaire were dully filled in and received back. The data collected through questionnaires has been analyzed to know the actual needs and expectations of the users.

Table - 2 Rate of Utilization of Services of Information Centers in Nagpur City

Information Centers	No. of users used general Services											
	Lending	Book Reservation Service	Reference Service	Bibliographical Service	Reprography Service	Referral Service	Inter Library Loans	Paper clippings Service	Periodicals Service	Extension Services	User Orientation	Information Service
ArSI	15 (100%)	6 (40%)	12 (80%)	10 (66.66%)	13 (86.66%)	-	-	10 (66.66%)	9 (60%)	-	-	11 (73.33%)
AnSI	14 (93.33%)	-	13 (86.66%)	-	-	-	-	6 (40%)	7 (46.66%)	-	6 (40%)	-
CICR	16 (100%)	5 (31.25%)	14 (87.5%)	8 (50%)	8 (50%)	-	-	4 (25%)	8 (50%)	-	6 (36.5%)	10 (62.5%)
NRCC	18 (94.73%)	-	17 (89.47%)	12 (63.15%)	14 (73.68%)	6 (31.57%)	9 (47.37%)	11 (57.89%)	16 (84.21%)	8 (42.10%)	11 (57.89%)	12 (63.15%)
GSI	13 (92.85%)	--	10 (71.44%)	-	9 (64.28%)	-	-	-	10 (71.44%)	-	-	-
HCJL	18 (100%)	-	16 (88.88%)	12 (66.66%)	15 (83.33%)	12 (66.66%)	13 (72.22%)	-	15 (83.33%)	-	11 (61.11%)	13 (72.22%)
IBM	18 (100%)	10 (55.55%)	16 (88.88%)	12 (66.66%)	16 (88.88%)	-	-	13 (72.22%)	15 (83.33%)	10 (95%)	12 (66.66%)	15 (88.33%)
MECL	12 (85.71%)	-	13 (92.85%)	-	12 (85.71%)	-	-	-	13 (92.85%)	-	11 (78.57%)	9 (44.28%)
MRRSA C	15 (100%)	-	13 (86.66%)	-	10 (66.66%)	-	-	-	11 (73.33%)	-	11 (73.33%)	14 (93.33%)
NADT	12 (85.71%)	--	12 (85.71%)	3 (21.42%)	9 (44.28%)	--	--	--	13 (92.85%)	--	8 (57.14%)	6 (42.85%)
NBSS	17 (89.47%)	--	17 (89.45%)	15 (78.94%)	19 (100%)	10 (52.63%)	15 (78.95%)	16 (84.21%)	15 (78.94%)	--	14 (73.68%)	16 (84.21%)
NCDC	16 (84.21%)	--	13 (68.42%)	12 (63.14%)	15 (78.94%)	--	--	12 (63.14%)	14 (73.68%)	--	12 (63.14%)	8 (42.12%)
NFSC	12 (80%)	4 (26.66%)	8 (53.33%)	--	--	--	--	7 (46.66%)	8 (58.33%)	--	12 (80%)	7 (46.66%)

RRSSC	15 (80%)	--	14 (77.77%)	--	13 (72.22%)	--	--	--	13 (72.22%)	--	--	--
VNIT	13 (92.85%)	10 (71.44%)	14 (100%)	9 (64.28%)	14 (100%)	--	--	13 (92.85%)	14 (100%)	--	12 (85.71%)	14 (100%)
WCL	13 (86.66%)	--	12 (80%)	--	--	--	--	--	12 (80%)	--	--	8 (53.22%)
Total	237	35	214	93	167	28	37	92	189	18	126	143
Percent ages	91.86	13.56	82.94	36.04	64.72	10.85	14.34	35.65	73.25	6.97	49.32	55.98

Table-2 reveals the user's utilization of services rendered by LICs in Nagpur services rendered by various LICs of Nagpur, followed by 82.94% users are using reference services. 73.25% users know the periodical services provided by the LICs followed by 49.32% of users aware about user orientation programme, 64.72% users are having awareness about reprographic services. 55.42% users are known about information services. Lending, Reference and Periodical services are more utilized by the user's community. All the 100 % users of ArSI, CICR, HCJL, and MRRSAC are using lending services. Book reservation service is used by maximum (55.55%) users of IBM. Reference service is used by 92.85% of users of MECL. Maximum number of users 78.94% and 100% of NBSS users used Bibliographical services and Reprography services respectively. Only NRCC, HCJL and NBSS users used interlibrary loan and referral services. 84.21% of users of NBSS used Newspaper clipping service. Periodicals are being used by 92.85% of users of MECL. Extension services are used by only two LICs NRCC and IBM.

Table- 3 Utilization of Value added Services of Information Centers of Nagpur City

S. N.	Information Centers	No. of Users	Special Services		
			Abstracting & Indexing	CAS	SDI
1	AnSI	15	--	11(73.33%)	--
2	ArSI	15	12(80%)	13(86.66%)	10(66.66%)
3	CICR	16	14(87.5%)	15(93.75%)	11(68.75%)
4	NRCC	19	17(89.47%)	16(84.21%)	13(68.44%)
5	GSI	14	--	11(78.57%)	--
6	HCJL	18	16(88.88%)	15(83.34%)	14(77.77%)
7	IBM	18	17(94.44%)	13(72.22%)	15(83.34%)
8	MECL	14	--	12(85.74%)	--
9	MRSAC	15	14(93.33%)	13(86.66%)	11(73.33%)
10	NADT	14	--	12(85.74%)	--
11	NBSS	19	17(89.47%)	18(94.73%)	16(84.21%)

12	NCDC	19	--	14(73.68%)	11(57.89%)
13	NFSC	15	--	12(80%)	9(60%)
14	RRSSC	18	--	9(50%)	7(38.88%)
15	VNIT	14	14 (100%)	13(92.85%)	13(92.85%)
16	WCL	15	11(73.33%)	14(93.33%)	11(73.33%)
	Total	258	132	211	141
		100%	51.16	81.78	54.65

Table- 3 depicts the analysis of value added services rendered by LICs in Nagpur. It is revealed that only half of the respondents (51.16%) are aware of the Abstracting and Indexing services being provided by LICs in Nagpur. Total 81.78% of users are used CAS services followed by SDI services are being used by 54.65% of users. Abstracting and Indexing services are maximum used by VNIT users (100%) followed by IBM users (94.44%), Maximum CAS service is used by (94.73%) users of NBSS and SDI service is used by VNIT users (92.85%).

Table- 4 Utilization of Computerized Services by Users of Information Centers in Nagpur

Information Centers	Computerized Services					
	Internet Service	CD-Rom database	E-mail	OPAC	Online E-Journals	Computerized Circulations
AnSI	--	--	--	--	--	--
ArSI	13(86.66%)	14(93.33%)	13(86.66%)	14(93.33%)	12(80%)	11(73.33%)
CICR	14(87.5%)	13(81.21%)	14(87.5%)	13(81.21%)	12(71%)	12(71%)
NRCC	17(89.47%)	14(73.68%)	17(89.47%)	13(68.42%)	13(68.42%)	13(68.42%)
GSI	---	--	--	--	--	--
HCJL	17(94.44%)	15(83.33%)	17(94.44%)	15(83.33%)	15(83.33%)	--
IBM	16(88.88%)	12(66.66%)	16(88.88%)	--	11(61.11%)	11(61.11%)
MECL	--	--	--	--	--	--
MRSAC	13(86.66%)	12(80%)	13(86.66%)	11(73.33%)	10(66.66%)	--
NADT	11(78.52%)	10(71.42%)	11(78.57%)	12(85.71%)	--	8(57.14%)
NBSS	18(94.73%)	18(94.73%)	18(94.73%)	17(89.47%)	18(94.73%)	15(78.94%)
NCDC	16(84.21%)	--	16(84.21%)	--	--	--
NFSC	11(73.33%)	--	11(73.33%)	--	--	--
RRSSC	16(88.88%)	12(66.66%)	16(88.88%)	--	--	--
VNIT	14(100%)	12(85.71%)	14(100%)	14(100%)	13(92.85%)	14(100%)

WCL	--	--	--	--	--	--
Total	176	132	176	109	104	84
Percentage	68.21	51.16	68.21	42.24	40.31	32.55

Presently the emergence of World Wide Web/ Internet is radically changing the generations, flow and utilization of scholarly information globally; Along with the services of LICs the internet is providing information access to a larger extent. Table- 4 shows the users awareness about the computerized services. Internet services and E-mail facilities are being used by 68.21% of the users. CD-ROM databases searching and information retrieval is used by half of the respondents (51.16%) OPAC by 42.24% of the users; 40.31% of users use online E-journals and computerized circulation is being used by 32.55% users of the LICs of Nagpur. Internet services are being used more to other services. NBSS users used all most all facilities like internet, CD-Rom database, E-mail, OPAC Online, E-Journals and Computerized Circulations 18 (94.73%) as compared to other LICs.

Table- 5 Utilization of Databases

S. N.	Information Centers	No. of Users	Use of CD-ROM Databases	
		258	Yes	No
1	AnSI	15	--	15(100%)
2	ArSI	15	12(80%)	3(20%)
3	CICR	16	16(100%)	--
4	GSI	14	--	14(100%)
5	HCJL	18	17(94.44%)	--
6	IBM	18	15(83.33%)	03(16.66%)
7	MECL	14	--	14(100%)
8	MRSAC	15	13(86.66%)	02(13.33%)
9	NADT	14	--	14(100%)
10	NBSS	19	19(100%)	--
11	NCDC	19	12(63.15%)	05(26.31%)
12	NFSC	15	--	15(100%)
13	NRCC	19	17(89.47%)	2(10.52%)
14	RRSSC	18	--	18(100%)
15	VNIT	14	14(100%)	--
16	WCL	15	--	15(100%)
	Total	258	135(52.32%)	120(46.51%)

Earlier LICs maintained the conventional documents. Now the physical form of the documents is changed to bricks to click. To cope with these, Libraries have changed their ways of maintaining a

documents and providing services. It is therefore essential to educate the users about these new changes. Table- 5 intended to study the use of CD-ROM databases by the users of LICs of Nagpur, out of 258 respondents 52.32% users are using the CD-ROM services rendered by their respective LICs, and 46.51% of users are not using CD-ROM database search facilities. Highest number of users 19 (100%) used CD-ROM Database by NBSS, and followed by NRCC 17 (89.47%) and HCJL 17(94.44%) respectively. It is observed that other center's users are also aware of utilizing the CD-ROM Databases.

Table- 6 Utilization of Internet

S. N.	Information Centers	No. of Users	No. of Users		
			Daily	Weekly	Monthly
1	AnSI	15	--	--	--
2	ArSI	15	7(46.66%)	8(53.33%)	--
3	CICR	16	10(62.5%)	6(37.5%)	--
5	GSI	14	4(28.57%)	3(21.42%)	--
6	HCJL	18	15(83.33%)	3(16.66%)	--
7	IBM	18	14(77.77%)	2(11.11%)	2(11.11%)
8	MECL	14	9(64.28%)	5(35.71%)	--
9	MRRSAC	15	12(80%)	2(13.33%)	--
10	NADT	14	8(57.14%)	4(28.57%)	2(14.28%)
11	NBSS	19	12(63.15%)	3(15.78%)	4(21.05%)
12	NCDC	19	10(52.63%)	4(21.05%)	5(26.31%)
13	NFSC	15	8(53.33%)	2(13.33%)	5(33.33%)
4	NRCC	19	14(73.68%)	3(15.78%)	2(10.52%)
14	RRSSC	18	11(61.11%)	5(27.77%)	2(11.11%)
15	VNIT	14	11(78.57%)	3(21.42%)	--
16	WCL	15	--	--	--
	Total	258	145(56.20%)	53(20.54%)	22

Table-6 shows the frequency of use of Internet by the users of LICs Nagpur. The above table shows that majority 138 (53.48%) of respondents use internet daily. Out of 258 users 53 (20.54%) users use library once in week and 22 users (8.52%) once in a month. HCJL center's users used 15(83.33%) internet facilities daily, ArSI users used 8 (53.33%) weekly and NFSC 5 (33.33%) monthly. ArSI and WCL are not providing the Internet facility to the users.

Considering the increasing use of the Internet as a platform for information access and dissemination, it is recommended that more efforts should be taken to establish necessary infrastructure and connectivity in the LICs in Nagpur City to provide the benefit of internet to their users.

Table-7 Rating of Purpose for the Use of Internet Facilities

S. N.	Information Centers	Total Number of Users	General Awareness	Entertainment	To add information on subject study	Communication	Research Work	Any other
1	AnSI	15	--	--	--	--	--	--
2	ArSI	15	8(53.33%)	12(80%)	14(93.33%)	14(93.33%)	9(60%)	--
3	CICR	16	10(62.5%)	8(50%)	14(87.5%)	15(93.75%)	11(68.75%)	4(25%)
4	NRCC	19	9(47.36%)	8(42.10%)	12(63.15%)	14(73.68%)	16(84.21%)	6(31.57%)
5	GSI	14	5(35.71%)	--	6(42.85%)	5(35.71%)	6(42.85%)	--
6	HCJL	18	12(66.66%)	6(33.33%)	14(77.77%)	10(55.55%)	17(94.44%)	6(33.33%)
7	IBM	18	12(66.66%)	9(50%)	15(83.33%)	14(77.77%)	16(88.88%)	2(11.11%)
8	MECL	14	--	--	--	--	--	--
9	MRSAC	15	13(86.66%)	7(46.66%)	13(86.66%)	12(80%)	14(93.33%)	4(26.66%)
10	NADT	14	8(57.14%)	4(28.57%)	12(85.71%)	13(92.85%)	13(92.85%)	3(21.42%)
11	NBSS	19	13(68.42%)	3(15.78%)	16(84.21%)	14(73.68%)	18(94.73%)	2(10.52%)
12	NCDC	19	7(36.84%)	4(21.05%)	15(78.94%)	13(68.42%)	17(89.47%)	5(26.31%)
13	NFSC	15	6(40%)	5(33.33%)	11(73.33%)	13(86.66%)	14(93.33%)	--
14	RRSSC	18	7(38.88%)	--	12(66.66%)	14(77.77%)	13(72.22%)	--
15	VNIT	14	6(42.85%)	--	13(92.85%)	13(92.85%)	12(85.71%)	2(14.28%)
16	WCL	15	--	--	--	--	--	--
	Total	258	116	66	167	164	176	34
	Percentages	100%	44.96%	25.58%	64.72%	63.56%	68.21%	13.17%

An attempt has been made to know the purpose for the use of internet facilities by the users. The Internet is a collection of interlinked computer networks or networks of networks. The internet offers a gateway to a myriad of online databases, library catalogues, collections, and software and documents achieves. Now the knowledge is not restricted to the printed media and the reader has also changed their habit for getting the required literature. Table- 7 reveals that maximum number of the users (68.21%) browse internet for the purpose of research work, to add information on subject study by 64.72% of users, 63.56% of users use internet for communication, 44.96%of users use internet for general awareness, 25.58% users are using internet for entertainment and 13.17% of users use internet for personal communication. Highest number (86.66%) of users of MRRSSC is using the internet for general purpose followed by 68.42% of users of NBSS. Maximum 80% of users from ArSI have used internet for

entertainment purpose. Highest 93.33% of users from ArSI used internet for adding the information for their subject study; followed by 92.85% of users of VNIT.

Table-8 Utilization of Internet Services

Parameters of information retrieval from the internet	ArSI	CICR	NRCC	GSI	HCJL	IBM	MECL	MRRSAC	NADT	NBSS	NCDC	NFSC	RRSSC	VNIT	WCL	Total	Percentage
No. of Users	15	16	19	14	18	18	14	15	14	19	19	15	18	14	15	258	
Awareness of a new topic	10 (66.66%)	9 (56.25%)	17 (89.47%)	--	14 (77.77%)	16 (88.88%)	02 (14.28%)	12 (80%)	13 (92.85%)	15 (78.94%)	14 (73.68%)	7 (46.66%)	16 (88.88%)	12 (85.71%)	--	157	60.85
Current trends in the discipline	12 (80%)	13 (81.25%)	17 (89.47%)	03 (21.42%)	17 (94.44%)	16 (88.88%)	04 (28.57%)	13 (86.66%)	14 (100%)	18 (94.73%)	16 (84.21%)	9 (60%)	18 (100%)	14 (100%)	--	184	71.31
Ongoing research project	12 (80%)	14 (87.5%)	13 (68.42%)	04 (28.57%)	12 (66.66%)	14 (77.77%)	--	6 (40%)	3 (21.42%)	16 (84.21%)	15 (78.94%)	6 (46.66%)	17 (94.44%)	13 (92.85%)	--	145	56.20
Retrospective Information	7 (66.66%)	4 (25%)	6 (31.57%)	--	5 (27.77%)	8 (88.88%)	--	7 (46.66%)	5 (35.71%)	5 (26.31%)	4 (21.05%)	5 (33.33%)	6 (33.33%)	4 (28.57%)	--	66	25.58
Statistical Information	8 (53.33%)	3 (18.75%)	3 (15.78%)	--	7 (38.88%)	8 (44.44%)	--	5 (33.33%)	3 (21.42%)	5 (26.31%)	3 (15.78%)	2 (13.33%)	9 (50%)	7 (50%)	--	63	24.41
Evaluation or critical review	3 (20%)	4 (25%)	5 (26.31%)	--	6 (33.33%)	4 (22.22%)	--	3 (20%)	5 (35.71%)	4 (21.05%)	6 (31.57%)	6 (40%)	7 (38.88%)	--	--	53	20.54
For literature review	7 (46.66%)	6 (37.5%)	6 (31.576%)	--	7 (38.88%)	5 (27.77%)	02 (14.28%)	2 (13.33%)	3 (21.42%)	4 (21.05%)	4 (21.05%)	3 (20%)	4 (22.22%)	5 (35.71%)	--	58	22.48

Table-8 depicts the utilization of search of internet use, maximum number of (184) 71.31% users are interested to browse the internet for knowing the current trends in the discipline; followed by 157 users (60.85%) to familiarize themselves of a new topic. 145 (56.20%) users are browsing the internet for

ongoing research projects, retrospective information by 25.58% of users; for statistical information by 24.41%; evaluation or critical review by 20.54% of users; and 24.48% of users search for literature review on their research topics. Highest 92.85% users of NADT uses internet for their new topics followed by 89.47% users of NRCC. 100 % of users use internet to know the current trends in discipline from RRSSC, VNIT and NADT. Highest 94.44% of users of RRSSC used internet for searching the ongoing research projects. 88.88% of users of IBM search internet for retrospective information; followed by 46.66% of users of MRRSSC. Maximum 50 % of users from RRSSC and VNIT search for statistical information. Evaluation or critical reviews were searched by Maximum 40% of users of NFSC. Highest 46.66% of users from ArSI browsed the internet for searching the related review of literature on their study.

Table- 9 Rating of Acquaintance of the Search Engines/ Websites

S. N.	Name of Information Centers	Total Number of Users	Parameters			
			Recommendation by the Library Staff	Recommendation by Classmates	During the Course	Read out in Documents/ Newspaper
1	AnSI	15	--	--	--	--
2	ArSI	15	8(53.33%)	7(46.66%)	--	4(26.66%)
3	CICR	16	6(37.5%)	12(75%)	5(31.25%)	10(62.5%)
4	NRCC	19	5 (26.31%)	13(68.42%)	8(42.10%)	12(63.15%)
5	GSI	14	--	--	--	07(50%)
6	HCJL	18	10(55.55%)	8(44.44%)	--	13(72.22%)
7	IBM	18	9(50%)	--	--	15(83.33%)
8	MECL	14	--	--	--	08(57.14%)
9	MRRSAC	15	10(66.66%)	8(53.33%)	4(26.66%)	13(26.66%)
10	NADT	14	8(57.14%)	--	--	12(85.71%)
11	NBSS	19	12(63.15%)	6(31.57%)	6(31.57%)	14(73.68%)
12	NCDC	19	10(52.63%)	11(57.89%)	6(31.57%)	15(78.94%)
13	NFSC	15	9(60%)	8(53.33%)	6(40%)	12(80%)
14	RRSSC	18	5(27.77%)	10(55.55%)	6(33.33%)	16(88.88%)
15	VNIT	14	10(71.42%)	8(57.14%)	7(50%)	13(92.85%)

16	WCL	15	--	--	--	--
	Total	258	102	91	48	164
	Percentage		39.53	35.27	18.60	63.56

It is depicted that from Table-9 that users have gained acquaintance of search engines, websites and e-resources from reading the documents and news papers itself while 39.53%, 35.27% and 18.60% respondents reported that the source of information about the new websites, search engines and E-resources are from library staff, classmates and during the course respectively. Total 63.56% of users of LICs in Nagpur City read out about the search engines and website in documents and newspapers. The highest 71.42% of users know about new search engines and websites recommended by library staff in VNIT, followed by MRRSSC. The highest 68.42% users of NRCC got acquaintance through recommendations of their classmates. 50% users and 92.85% users from VNIT revealed during the course and read in documents and newspapers to acquaint with the new search engines and website.

Table-10 Time Spent to Access Information from E- Resources

Name of the Information Center	Services											
	OPAC			CD-ROM			Internet Searching			Online E-journals		
	Per day	Per week	Per Month	Per day	Per week	Per Month	Per day	Per week	Per Month	Per day	Per week	Per Month
AnSI	--	--	--	--	--	--	--	--	--	--	--	--
ArSI	7(46.66%)	8(53.33%)	--	6(40%)	6(40%)	3(20%)	10(50%)	5(66.66%)	00	5(66.66%)	7(46.66%)	3(20%)
CICR	4(25%)	7(43.75%)	3(18.75%)	5(31.25%)	4(25%)	4(25%)	9(56.25%)	3(18.75%)	2(12.5%)	6(37.5%)	6(37.5%)	00
NRCC	5(26.31%)	4(21.05%)	4(21.05%)	6(31.57%)	5(26.31%)	3(15.78%)	10(56.63%)	4(21.05%)	3(15.78%)	4(21.05%)	7(36.84%)	2(10.52%)
GSI	--	--	--	--	--	--	--	--	--	--	--	--
HCJL	10(55.55%)	3(16.66%)	2(11.11%)	4(22.22%)	5(27.77%)	6(33.33%)	12(66.66%)	3(16.66%)	2(11.11%)	5(27.17%)	8(44.44%)	2(11.11%)
MRRSAC	8(53.33%)	7(46.66%)	00	4(26.66%)	5(33.33%)	3(20%)	8(53.33%)	4(26.66%)	3(20%)	6(40%)	4(26.66%)	00
NADT	7(50%)	5(35.71%)	2(14.28%)	4(26.66%)	7(46.66%)	2(14.28%)	6(42.85%)	2(14.28%)	3(21.42%)	--	--	--
NBSS	8(50%)	8(50%)	3(15.78%)	7(36.84%)	9(47.36%)	2(15.78%)	6(31.57%)	5(26.31%)	6(31.57%)	5(26.31%)	8(42.10%)	5(26.31%)
NCDC	--	--	--	--	--	--	9(47.36%)	7(36.84%)	3(15.78%)	--	--	--
NFSC	--	--	--	--	--	--	6(40%)	5(33.33%)	4(26.66%)	--	--	--

RRSSC	--	--	--	8(44.44%)	7(38.88%)	3(16.66%)	10(55.55%)	6(33.33%)	2 (11.11%)	--	--	--
VNIT	9 (64.28%)	5 (35.71%)	00	8(57.14%)	6(42.85%)	00	8(57.14%)	6(42.85%)	00	10.42(50%)	4(28.57%)	00
WCL	--	--	--	--	--	--	--	--	--	--	--	--
Total	58	47	14	52	57	31	106	62	28	46	52	17
Percentages	22.48	18.21	5.42	18.60	22.09	12.01	41.08	24.03	10.85	17.82	20.15	6.58

Table-10 shows that 41.08% users spent their time for internet searching daily followed by 22.48 % daily for OPAC services and 18.60% users spent their time for CD-ROM services per day. Maximum number of users (20.15%) for Online E-journals spent their time per week followed by 24.03 % for internet searching, 18.21% users spent their time for OPAC searching per week. 22.09 % users use their time for CD-ROM services per week. 5.42%, 12.01%, 10.85, 6.58% of users engaged in searching of OPAC, CD-ROMs, Internet and E-journals per week respectively.

Table- 11 User's Satisfaction Levels about Internet Services

S. N.	Name of the Information Centers	No. of Users	Fully Satisfied	Partially Satisfied	Not at all
1	AnSI	15	--	--	--
2	ArSI	15	12(80%)	3(20%)	--
3	CICR	16	14(87.5%)	2(12.5%)	--
4	GSI	14	7(50%)	7(50%)	--
5	HCJL	18	14(77.77%)	4(22.22%)	--
6	IBM	18	15(83.33%)	3(16.66%)	--
7	MECL	14	--	--	--
8	MRRSAC	15	7(46.66%)	8(53.33%)	--
9	NADT	14	9(64.28%)	6(42.85%)	--
10	NBSS	19	17(89.47%)	2(10.52%)	--
11	NCDC	19	13(68.42%)	6(31.57%)	--
12	NFSC	15	9(60%)	5(33.33%)	--
13	NRCC	19	15(78.94%)	4(21.05%)	--
14	RRSSC	18	4(22.22%)	14(77.77%)	--
15	VNIT	14	14(100%)	--	--
16	WCL	15	--	--	--

	Total	258	150	64	00
	Percentage		58.13	24.80	00

Table-11 reveals to assess the level of satisfaction with the retrieved information among the respondents. It is seen that out of 258 users 58.13% of users are fully satisfied with facilities available in LICs in Nagpur City, followed by 24.80% users are partially satisfied. The highest level of satisfaction with the internet facility is 100% from VNIT, followed by 89% in NBSS. 77.77% users of RRRSSC are of the view that they are partially satisfied with internet facility. It is suggested that Internet connection should be available in the individual departments also and the users should be encouraged to use the same. Broadband Internet connection with high speed should be provided on users nodes. More user nodes and training in handling and searching should be initiated.

Table- 12 Rating of Users Views regarding the Library Services

Parameters	Number of Users of Information Centers																Total	Percentage
	ArSI	AnSI	CICR	NRCC	GSI	HCJL	IBM	MECL	MRRSSC	NADT	NBSS	NCDC	NFSC	RRSSC	VNIT	WCL		
Total No. Users	15	15	16	19	14	18	18	14	15	14	19	19	15	18	14	15	258	
Library is not up-to-date	--	11 (73.33%)	3 (18.75%)	2 (10.52%)	12 (85.71%)	3 (16.66%)	2 (11.11%)	6 (42.85%)	2 (13.33%)	--	--	4 (21.05%)	2 (13.33%)	12 (66.66%)	--	3 (20%)	62	24.03
Information available is complete	13 (86.66%)	2 (13.33%)	13 (81.25%)	17 (89.47%)	--	15 (83.33%)	16 (88.88%)	8 (57.14%)	13 (86.66%)	12 (85.71%)	19 (100%)	11 (57.89%)	4 (26.66%)	3 (16.66%)	14 (100%)	6 (40%)	166	64.34
Information incomplete	2 (13.33%)	2 (13.33%)	--	--	2 (14.28%)	--	--	--	--	2 (14.28%)	--	4 (21.05%)	9 (60%)	3 (16.66%)	--	6 (40%)	30	11.62

In order to assess the LICs the users were asked the views regarding library services. It was found from the study that 64.34% users opined that information available in library is fully satisfied followed by the opinion 'Library is not up-to-date' 24.03%.and 11.62% users is of the opinion that information is incomplete. 73.33% of users of ArSI have expressed that library is not up-to-date. 100% of users of VNIT said information available is comprehensive; the highest in opinion that information is incomplete is 60% users of NFSC

Table-.13 Rating of Users Opinion for Improvement of Library Services

S.N.	Name of the Information Centers	No. of Users of Information Centers	Suggestions for improvement of Library Services		
			Library should acquire more Documents	Library needs more staff trained in Modern Techniques	Library Operations needs to be Fully Computerized
1	AnSI	15	12(80%)	13(86%)	15(100%)
2	ArSI	15	11(73.33%)	12(80%)	13(92.85%)
3	CICR	16	13(81.25%)	8(50%)	9(56.25%)
4	GSI	14	12(85.71%)	14(100%)	15(100%)
5	HCJL	18	5(27.77%)	7(38.88%)	13(72.22%)
6	IBM	18	6(33.33%)	13(72.22%)	9(50%)
7	MECL	14	12(85.71%)	14(100%)	14(100%)
8	MRSAC	15	13(86.66%)	4(26.66%)	13(86.66%)
9	NADT	14	12(85.71%)	7(50%)	13(92.85%)
10	NBSS	19	6(31.57%)	6(31.57%)	7(36.84%)
11	NCDC	19	12(63.15%)	11(57.89%)	14(73.68%)
12	NFSC	15	13(86.66%)	12(80%)	14(93.33%)
13	NRCC	19	14(73.68%)	13(68.47%)	11(57.89%)
14	RRSSC	18	15(83.33%)	16(88.88%)	15(83.33%)
15	VNIT	14	8(57.14%)	--	--
16	WCL	15	14(93.33%)	13(86.66%)	12(80%)
	Total	258	178	163	187
	Percentage		68.99	63.17	72.48

Table- 13 depicts users' opinion about improvement of Library Services. It is shown that 72.48% users opined that library operations needs to be fully computerized followed by 68.99% users stated that library should provide more documents and library needs more trained staff in modern techniques (63.17%). The highest 93.33% users from WCL were of the views that library should acquire more documents, followed by 86.66% users of NFSC and MRSAC. GSI 100% users represent that library needs more staff to be trained in modern techniques. 100 % users of ASI, GSI and MECL, expressed that there is a need for fully automated house keeping functions in their libraries and services.

Observations of the study

The questionnaire aimed to gather information needs and perception of Users of Local Information Centers in Nagpur and assessment of to what extent the resources, facilities and services of their centers meet their needs. Over all 360 questionnaires were distributed. 258 questionnaires were dully filled in and received back. The response rate is 71.66 %. Based on the 258 User's Survey study from Information Centers of Nagpur, the conclusions are summarized as:

- Half of the respondents are using library everyday and maximum number of respondents taking advantages of library services provided by their respective centers. Few users are aware of the abstracting and indexing services.
- Majority of the users are using internet services, and CD-ROM searching daily.
- Maximum number of users browse internet for the purpose of research work, few of them are using internet for entertainment.
- Maximum users search internet to know current trends in the discipline and full text articles.
- Majority of the users know about the new search engines and websites through reading the documents and newspapers.
- Fifty percent of the respondents of Information Centers in Nagpur seem to have a high level of satisfaction with library resources, and services provided, while others perceive that library is not up-to-date and adequate.
- Maximum number of users expressed that user orientation programme is not needed while few users felt the need for library orientation programme.
- Almost all the respondents expressed that it would help them to meet their information needs better if the centers could provide computerized, library services more E-resources and more staff trained in Information communication technology.
- Maximum number of users thinks that networking of libraries, sharing of resources, membership of local library consortium and databases in areas of interest and digital library are also equally needed.

Suggestions

Based on the study following suggestions are drawn.

- As Library is growing organism, it is suggested that the Library Buildings should be a separate for better growth and development of the Library and Information Centers.
- Information professionals are performing the routine activities of a library. They should train to provide advanced and value added services to the users.
- Information professionals need to be trained in acquiring current information on the research areas for their centers.
- More funding should be given to establish an appropriate IT infrastructure.
- Use of IT in Library and Information Centers helps to better organization of information and provide information services in lesser time. Information Centers have to be fully computerized, whatever the software used, it should be web enabled and allow interchange of data among different platforms.

- Strengthening IT infrastructure and connectivity is a pre-requisite of networking. This needs to be increased in information centers in Nagpur which is currently weak.
- Digitization of the collection or institutional repository is need of the hour. Relevant contents should be digitized and should be made widely accessible. With more necessary infrastructure and connectivity it can be made accessible online on a web based platform for wider access.
- No single library can satisfy all the information needs of their users. Consortia initiatives should be taken by the centers. Subscription of foreign journals and electronic databases could be coordinated through consortium initiative.
- Internet can be utilized to transfer documents directly to users' desktops. User can search documents, access articles, download and print.
- Broadband and VSAT connectivity should be used for high speed. Information regarding educational, popular, latest search engine and websites with their addresses should be displayed on the notice board in E-resource center of the library.
- Information professionals should make efforts to know national and international co-operative and networking programmes.
- Open Access has evolved as a major development in scholarly communication. It is new publishing model based access for self archiving and cost effective way of disseminating information. Information centers should develop their scholarly communication with Open Access software.
- Networking has become necessary, it is not possible for a single library to procure the full range of library resources required by their users, increasing cost and avoiding duplication, information centers of Nagpur should have network. Centers having similar subject areas should come together and develop a networked environment.
- Librarians should take the initiatives and develop programs to make users be more familiar with other services like book reservation service, referral service, bibliographical and inter library loan service.
- It is suggested that other LICs should have to pay attention towards the facilities provided by them which will be helpful to increase the number of users for better utilization of services. It is suggested that libraries should prepare a list of new Search Engines and websites and circulate among the users to suit their informational needs. If library is having the homepage then separate link should be hyperlinked under the heading "New Search Engines and Useful Websites"
- It is suggest that emphasis should be given to train the users to search from OPAC, CD-ROM, Internet and E-journals. In this line information literacy programmes should be organized for accessing Information retrieval through different search engines and from varied online resources.

References

1. Allen, K.W. "An investigation of Student and Faculty Attitudes and their utilization of the Community College Library in Three Selected Colleges within Illinois." **Dissertation**. Southern Illinois University, 1970.
2. Arora, M. "Use of Library and Reading Habits among College Students." **Current Developments in Library and Information Science**. Ed. P.P. Rawat and others. New Delhi: Reliance Publishing House, 1997. 543-553.
3. Baman, P. **Studies on Information System, Services and Programmes in India and Abroad**. Delhi: Ajanta Publication, 1993.
4. Bhaskara Rao, P. "A Survey of IIT Libraries, their Resources, Services a Model Information Network." **Thesis**. B. Vijyalakshmi, Andhra University, Andhra Pradesh, 1993.
5. Burns, R.W. and Hasty, R.W. **A Survey of User Attitudes toward Selected Services offered by Colorado State University Libraries**. Fort Collins: Colorado State University, 1973.
6. Chondhary, B.K. and Padhee, B.K. "Reading Habits of under Graduate Students in College of Rourkela: a survey." **Lucknow Librarian** 25. 3-4 (1993): 72-80.
7. Dhyani, P. "Need for Library Instruction to Reader in Rajasthan University: A Survey." **UNESCO Bulletin for Libraries** 28. 3 (1974): 156-159.
8. Ennis, P.H. "The Study of the Use and Users of Recorded Knowledge." **Library Quarterly** 34 (1964): 305-314.
9. Gratch, B. "Student and faculty User Survey final report." **ERIC document**. August, 1980.
10. [Gulati, A. "Use of Information and Communication Technology in Libraries and Information Centers: an Indian Scenario."](#) **Electronic Library** 22. 4 (2004): 335-350.
11. Kawatra, P.S. **Library User Studies: A Manual for Librarians and Information Scientists**. Bombay: Jaico Publishing, 1992. 301.
12. Khare, Thapa and Sahoo. "The pattern of Internet user satisfaction, in Dr. H. S. Gour University, Sagar." **Library Progress (International)** 27. 2 (2007).
13. Koganuramath, M.N, and Jange, S. "Use of Internet by Social Science Research Scholars: A Study." **Proceedings of Sixth CALIBER on Academic Libraries in the Internet Era, 1999**. Ed. P.S.G. Kumar and C.P. Vashishth. Nagpur: INFLIBNET, 1999. 239-245
14. Krishan Kumar. "Users Survey concerning Teachers and Research Scholars in the Department of Chemistry, University of Delhi." **Annals of Library Science**. 15. 4 (1968): 175-207.
15. Kumar, P.S.G. **Research in Library and Information Science in India: A Bibliography of Ph. D., M. Phil and MLISc dissertations**. Indexed by A Tejomurty and H. R. Chopra. New Delhi: Concept. 1987. 344p.
16. [Lakshmi, B.V.](#) and [Kanakachary, M.](#) "Information Needs and Use-patterns in Humanities: A Survey and proposal for setting up a National Documentation Centre for Humanities." **International Forum on Information and Documentation** 19. 3-4 (1994): 37-41.

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17. ~~Laxman Rao, N. "User Studies and User Education in Indian University Libraries."~~
Proceedings of the Seminar on International Development in User Education and Studies,
July 22, 1985. Hyderabad: Deptt. of Library and Information Science, Osmania University, 1985.
18. Linton, R.A. ***User's Survey of the College of Charlestons Robert Scott-small Library***.
College of Charleston, S.C. Robert. Scott Small Library, 1980, 18.
19. Parisutharaj L, and Kanthimathi S. "Use of E-resources Statistics: A Case Study of NIT
Tiruchirapalli Library." ***Proceedings of the IATLIS National Seminar on Library Consortia***,
March 22-23, 2004. Ed. N. Laxman Rao and others. Hyderabad: Osmania University, 2004. 137-1

