

Information Needs and Expectations in Digital Era: A Study of Select Agricultural Institutes in Northern India

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ABSTRACT

Purpose

The paper highlights the information needs and expectations of users of select agricultural institutes in Northern India. It describes the information sources used, services & facilities preferred and satisfaction of the services offered to them.

Design/methodology/approach

Selected libraries of agricultural institutes of Northern India are surveyed using a well structured questionnaires and personal observations as data gathering instruments.

Findings

The study reveals various information sources and services preferred by users. It also highlights their satisfaction level and competency of library staff in assisting users in accessing information resources using information communication technology (ICT) and its associated tools.

Research limitations/implications

The research is limited to few selected libraries of agricultural institutes of North India. This method of investigating users expectations from the agricultural libraries of other parts of India can be repeated in future research.

Originality/value

The paper provides library professionals a thorough understanding of different types of services and facilitates users expect from the libraries today. It can help in collection development policy and planning of services for the future use.

KEY WORDS

Agricultural libraries; Information sources; Information services; Information needs; Users' expectations; Northern India

PAPER TYPE *Research*

INTRODUCTION

Agriculture is the key force in India's economic growth besides means of livelihood for almost two thirds of the work force in the country. It occupies an important role in Indian economy; but declining of various factors, mainly lack of proper and timely information has a severe impact for its sustainable growth. The users need the latest information about best practices instantly having a potential of improving efficiency and

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productivity of agriculture and its allied sectors like Horticulture, Forestry, Fisheries, etc.

Forty five state Agricultural Universities, 4 deemed Universities, 4 Central Universities with the Faculty of Agriculture Sciences, 45 ICAR Institutes, 17 National Research Centers, 6 National Bureaux and 25 Directorates/Project Directorates are working under ICAR to promote and coordinate education, research and its application in Agriculture and Allied Sciences. Agriculture university libraries play an important role in providing the right direction to the agricultural, scientific, and technological development of a nation as "Every library exists to serve the needs of its community of users." (**Kannappanavar, 2010**)

Secondly today, no field is left untouched by the technological revolution. It has changed the face of libraries and paradigm shift from print based resources to electronic ones has increased the role of e-resources demanding effective and speedier services from today's libraries. Consequently user information seeking behavior has also changed. Thus it is imperative to analyze users' information seeking behavior and understand their information needs and imperative for professionals to enhance their ICT skill to organize and disseminate filtered information to their users in this digital era. According to **Linda (2004)**, "emerging skills in the electronic information environment are communication, negotiation and collaboration, with information professionals being called upon to teach new skills".

LITERATURE REVIEW

Right from ancient times to the present Internet era, the primary objective of library is a host of predetermined tasks like acquiring, organizing, preserving, retrieving and disseminating information to the users. However, the way this purpose has been achieved has drastically changed (**Kanmadi & Kumbar, 2006**). **Hanif (2009)** points out that the fast-paced technological developments have changed the way the users access and retrieve information. Information is an important resource, valuable input and power for societal development. It is power as it is the basis of all planning, indeed of all activities. There is no field of human activity where information is not a vital component. The paper presented at 43rd All-India Conference of the Indian Library Association explains the importance of library and information systems in agricultural education, research and development. The author brings out the challenges offered to library executives by information explosion, developments in computer and communication technology, and information awareness (**Raman, 1998**). **Raman and Francis (1996)** emphasis how existing information systems can meet the research, education and extension needs of agricultural sector in India. They point out the wrong concepts

about information systems and services and put forward suggestions for improvement besides recommend establishment of a central agency to monitor the utilization of resources allotted for agricultural information services. Another study highlights the channels of seeking information by rural farmer community. It suggests that considerable work and efforts are needed for imparting information support for sustainable agriculture development with the applications of emerging information and communication technologies for information oriented and socio-economic empowerment of the rural farming community (**Meitei & Devi, 2009**). **Natrajan, Suresh, Sivaram and Sevukam, (2010)** surveyed the use and user perception of electronic resources in Annamalai university and revealed that despite the availability of wide range of e-resources, the frequency of their use is low; the reasons identified being lack of time, awareness, subject coverage and slow downloading.

PROBLEM

It is imperative to understand the existing pattern of information use by the Agricultural scientists besides services and assistance offered by libraries and satisfaction level thereof by users so that a better policy and strategy is put forth by these institutions for enhancing service level of resource centers.

OBJECTIVES

- To identify the types of information sources used.
- To identify the services and facilities preferred by users.
- To measure satisfaction level of the professional staff in getting assistance by users.

METHODOLOGY

The study is carried out using survey method and accordingly a pre-structured questionnaire was designed as the instrument for data collection and later supplemented with personal observation as well. Users were selected randomly as per the frequency of their library visits. A total of 465 pre-structured questionnaires were distributed among the users of the libraries of agricultural institutes. Out of them only 361 responded and it estimates to a response rate of 77.63%. The response rate from each agricultural Institution varies according to its users' strength. A high response is from SKAUST-J followed by CSKHPKV, CCSHAU, CSSRI, YSPUHF, SKAUST-K and PAU while low response rate is from NBPGR, IARI, NCAP and IASRI respectively (**Table 1**).

Table 1: University-wise Respondents

Agricultural Institutions	No. of Questionnaire Distributed	Response
YSPUHF	50	38 (76)
CSKHPKV	50	43 (86)
CCSHAU	50	40 (80)
PAU	50	37 (74)
SKAUST-K	50	38 (76)
SKAUST-J	50	44 (88)
IARI	50	36 (72)
NDRI	50	41 (82)
CSSRI	20	16 (80)
IASRI	20	10(50)
NCAP	10	7 (70)
NBPGR	15	11 (73)
Total	465	361(77.85)

Figures in parentheses indicate the percentage

SCOPE

The eight State Agricultural Universities (SAU) and Deemed Universities (DU) are selected for the study besides two National institutes and two Research institutes on the basis of the availability of large number of professionals and availability of ICT infrastructure. **(Appendix I)** The different abbreviations used for the study is also given in the appendix.

FINDINGS AND SUGGESTIONS

Library Visit

The frequency of library visits of users varies among different institutions. Majority admit that they visit on daily basis, followed by 2-3 times a week, weekly and fortnightly. It is observed that majority who visit library are students followed by research scholars. The least respondents are farmers (i.e. the end users of all agricultural research outputs) who are still not using agricultural libraries. They are more linked to extension activities such as Kisan Mela, Krishi Vigyan Kendra, etc. which provide them access to latest techniques of farming and improvised seeds to increase production. These activities should be carried out in libraries too so that they can also have access to their resources. User Orientation programme need to be designed specifically for farmers to inculcate information seeking and reading habits among them. Measures need also to be taken not only to convert non-users to users but also to make them

regular users by providing effective services and filtered information according to their requirements to maximize utilization of the resources (Table 2).

Table 2: Frequency of Library Visit

Agricultural Institutions	LIBRARY VISIT						Total
	Daily	Weekly	2-3 Times Per Week	Fortnightly	Monthly	Rarely	
YSPUHF	28	2	4	0	0	4	38
CSKHPKV	25	3	13	2	0	0	43
CCSHAU	26	2	11	0	0	1	40
PAU	17	2	14	1	2	1	37
SKAUST-K	28	2	8	0	0	0	38
SKAUST-J	25	4	11	3	0	0	43
IARI	30	0	6	0	0	0	36
NDRI	36	1	4	0	0	0	41
CSSRI	4	5	5	1	0	1	16
IASRI	0	2	8	0	0	0	10
NCAP	7	0	1	0	0	0	8
NBPGR	9	0	2	0	0	0	11
Total	235	23	87	7	2	7	361
%age Total	65.1	6.4	24.1	1.9	.6	1.9	100.0

Access of Information Sources

Users mainly access information sources like books followed by general web sources, printed journals, and electronic journals. The least accessed information sources are open access journals (Table 3). Majority of visitors accessing books are student whereas research scholars and others prioritize general web resources, printed journals, electronic journals and open access journals as well as books. In spite of internet and googlisation of information process, users are still fond of print materials and web resources as well. Therefore, collection development policies need to be revisited and developed making a due regard to user opinion and preferences. Libraries should subscribe e-resources as well as the print resources.

Preference of Services

The choice of users in the present era reveals 'User Education' and

Internet as most preferred services. Users rank **OPAC** service fourth in preference while **Audio/Video facility, Smart card facility and Conference Alert** expected at 12th rank by most of the respondents. **Indexing & Abstracting** service was preferred at 11th order by majority of the users.

CAS/SDI services are preferred at 10th in priority order by maximum respondents. **Reprography service and Reference service is rated** at 7th order. But **CD-ROM Database** service is ranked 5th by 54 respondents. **Access to e-resources** is ranked 4th by maximum respondents. **On-Line Access to Journals** is ranked at 3rd order by majority of the respondents. **Translation service** is expected at the last order by majority of the respondents. (Table 4). As majority of the respondents prefer internet, user education, OPAC and on-line access to journals on top order of priority, therefore, measures should be taken to empower staff to manage information systems digitally, so that they are capable of networking the information services and deliver services as per users' requirements. Libraries should also provide online access to full text journals and other scholarly articles with adequate number of computer terminals with internet connectivity so that information can be accessed via local and global networks. Users especially from rural areas are not very much comfortable with ICT and its dynamic tools to access information, therefore, special training programme should also be organized to develop ICT skills/information literacy among such users.

Table 3: Type of Information sources accessed

Agricultural institutions	BOOKS		Printed Journals		Electronic Journals		General Web Sources		Open Access Journals	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
YSPUHF	1	37	13	25	16	22	22	16	34	4
CSKHPKV	1	42	22	21	34	9	25	18	38	5
CCSHAU	0	40	29	11	36	4	27	13	38	2
PAU	1	36	21	16	31	6	12	25	34	3
SKAUST-K	2	36	27	11	15	23	5	33	31	7
SKAUST-J	5	38	16	27	37	6	13	30	41	2
IARI	3	33	11	25	25	11	18	18	25	11
NDRI	11	30	24	17	30	11	12	29	41	0
CSSRI	0	16	2	14	12	4	9	7	16	0
IASRI	0	10	0	10	2	8	6	4	8	2
NCAP	2	6	0	8	6	2	6	2	6	2
NBPGR	0	11	0	11	8	3	8	3	8	3
Total (361)	26	335	165	196	252	109	163	198	320	41
%age Total	7.2	92.8	45.7	54.3	69.8	30.2	45.2	54.8	88.6	11.4

Table 4: Services ranked by users in order of priority (1= Most Important)

Services & Facilities	Priority Order of services by the users													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Scale (1= most Important)														
User Education	137	62	25	25	29	25	20	15	11	7	0	0	4	1
OPAC	15	32	59	54	40	38	31	24	19	15	14	14	2	4
Internet	142	141	45	15	5	5	4	2	0	2	0	0	0	0
Audio/Video	1	17	7	16	14	7	7	8	8	3	7	27	152	87
Conference Alert	1	0	2	22	10	22	36	33	55	36	33	77	22	12
CD-ROM Database	6	29	30	38	54	49	40	33	33	13	24	3	5	4
Reprography	2	1	20	9	30	57	48	52	35	31	38	14	7	10
Translation	0	1	0	5	14	7	4	21	3	10	6	30	76	184
Reference	13	13	26	21	24	32	64	39	30	44	16	29	9	1
Indexing & Abstracting	0	9	11	15	15	24	29	39	55	50	75	32	6	1
%age (361)	0	2.5	3.0	4.2	4.2	6.6	8.0	10.8	15.2	13.9	20.8	8.9	1.7	.3
CAS/SDI	0	4	4	5	8	15	14	23	52	76	63	61	24	12
%age (361)	.0	1.1	1.1	1.4	2.2	4.2	3.9	6.4	14.4	21.1	17.5	16.9	6.6	3.3
Smart Card	2	3	9	6	19	20	24	22	25	30	56	63	45	37
% age (361)	.6	.8	2.5	1.7	5.3	5.5	6.6	6.1	6.9	8.3	15.5	17.5	12.5	10.2
Access to E-Resources	10	7	26	60	60	33	28	32	30	32	22	10	8	3
%age (361)	2.8	1.9	7.2	16.6	16.6	9.1	7.8	8.9	8.3	8.9	6.1	2.8	2.2	.8
On-Line Access to Journals	40	40	97	69	38	20	14	18	9	11	1	4	8	3
%age (361)	11.1	11.1	26.9	19.1	10.5	5.5	3.9	5.0	2.5	3.0	.3	1.1	2.2	.8

Service Satisfaction

As per the study, only 13.6% admit that they are very much satisfied with the services provided to them. Majority of the respondents reported that they are satisfied followed by partially satisfied users, somewhat dissatisfied user group. The least respondents who were very much dissatisfied with the services are only 1.4 %. **(Table 5)**. Library professionals need to carve their skills so that effective user oriented services can be rendered. They should develop & maintain a healthy customer relationship with the users in order to understand the prevailing needs in their field of interests.

Table 5: Service Satisfaction

Agricultural Institutions	Service Satisfaction					Total
	Very Satisfied	Satisfied	Partially Satisfied	Somewhat Dissatisfied	Very Dissatisfied	
YSPUHF	6	23	9	0	0	38
CSKHPKV	8	24	9	1	1	43
CCSHAU	13	17	9	1	0	40
PAU	2	21	10	4	0	37
SKAUST-K	0	29	6	3	0	38
SKAUST-J	4	16	19	2	2	43
IARI	4	11	14	7	0	36
NDRI	7	23	9	2	0	41
CSSRI	0	10	4	0	2	16
IASRI	4	6	0	0	0	10
NCAP	0	7	1	0	0	8
NBPGR	1	8	2	0	0	11
Total	49	195	92	20	5	361
%age of Total	13.6	54.0	25.5	5.5	1.4	100.0

Staff Assistance

Rating the capability of staff in assisting the users in accessing and handling information as per their information requirement using ICT tools, shows that majority of the respondents rated the staff capability as good followed by very good and poor respectively. Very few (11.1 %) respondents rate their capability in the excellent category **(Table 6)**.

Hence, staff members need to sharpen their skills to fully satisfy the users' information needs in the digital era.

Table 6: Capability of Library Staff

Agricultural Institutions	Capability of Library Staff				Total
	Excellent	Very Good	Good	Poor	
YSPUHF	7	17	14	0	38
CSKHPKV	10	13	19	1	43
CCSHAU	5	17	18	0	40
PAU	4	10	20	3	37
SKAUST-K	0	2	22	14	38
SKAUST-J	7	15	16	5	43
IARI	0	8	10	18	36
NDRI	2	18	14	7	41
CSSRI	4	4	6	2	16
IASRI	0	4	6	0	10
NCAP	0	7	1	0	8
NBPGR	1	6	4	0	11
Total	40	121	150	50	361
%age of Total	11.1	33.5	41.6	13.9	100

Due to rapid advancements in technology, users' information needs are changing constantly. They prefer both print and electronic information services in this digital era. Digital environment has brought a sea change in the way information is stored and accessed. User studies should be carried out at regular intervals to determine the information needs of the users. To fulfill the demands of the technology driven society and to serve the clientele in an effective way, library professionals require extensive training and adequate system support to acquire new skills to analyze, evaluate and disseminate information to the users according to their requirements.

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APPENDIX I

1. Chaudhary Charan Singh Haryana Agricultural University(CCSHAU),Hissar,Haryana;
2. Chaudhary Sarwan Kumar Himachal Pradesh Krishi Vidyalaya (CSKHPKV), Palampur, Himachal Pradesh;
3. Dr. Yashwant Singh Parihar University of Horticulture and Forestry (YSPUHF), Solan, Himachal Pradesh;
4. Punjab Agriculture University (PAU),Ludhiana, Punjab;
5. Sher-e-Kashmir University of Science and Technology-Jammu (SKAUST-J), Jammu, Jammu and Kashmir;
6. Sher-e-Kashmir University of Science and Technology-Kashmir (SKAUST-K), Srinagar, Jammu and Kashmir;
7. Indian Agricultural Research Institute (IARI), New Delhi ;
8. National Dairy Research Institute (NDRI), Karnal, Haryana.
9. Central Soil Salinity Research Institute (CSSRI), Haryana;
10. Indian Agricultural Statistical Research Institute (IASRI), NewDelhi;
11. National Centre for Agricultural Economics & Policy Research (NCAP), New Delhi; and
12. National Bureau of Plant Genetic Resources (NBPGR), New Delhi.