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May 2010

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Kannappanavar, B. U. and Swamy, H.M. Chidananda, "User Perception of Library and Information Services in Agricultural Science Universities in South India: An Evaluative Study" (2010). *Library Philosophy and Practice (e-journal)*. 353.

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User Perception of Library and Information Services in Agricultural Science Universities in South India: An Evaluative Study

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Introduction

Agriculture university libraries play an important role in providing the right direction to the agricultural, scientific, and technological development of a nation. Every library exists to serve the needs of its community of users. The evaluation of a library is based on how well it serves these needs. Meeting user needs necessitates a study of those needs.

Progress in science and technology means that libraries must provide a variety of services to users. To achieve this, it is necessary to have a continuous feedback from users. One way to achieve this is by analyzing requests for further information on library and information services. That can help orient library and information services to user requirements, forming a quick and continuous way of evaluating those services.

Agricultural university libraries in India have a 50-year history, and have come a long way from the days when the Govind Ballabh Pant Agricultural University Library was set up in 1960. Those were the days when no library and information services were provided to the users, not even circulation. A university library now is no mere appendage to the parent institution; it is no ivory tower; it has transformed into a service institution. In this regard, the Parry Committee Report of the UK has noted with satisfaction that the fundamental change in attitude in university library has been from inward looking conservation to an outward-looking organization geared to the information needs of the users. Similarly, in India the Radhakrishnan Commission Report, the University Grants Commission, the Kothari Commission Report, etc., have attached much importance to university libraries. This article is based on a survey conducted by the researcher in evaluating the collection and services provided by South Indian Agricultural University Libraries.

Objectives of the Study

Modern agricultural university libraries stress the importance library and information services to agricultural research, teaching, learning, and extension. A major objective of the present study is to

evaluate the library and information services in agricultural university libraries in South India. The following are other objectives:

- To discover the types of library and information services required by users;
- To elicit opinions about services offered by the library;
- To elicit opinions about the problems faced by users;
- To collect opinions about the adequacy of information resources and their use;

Hypothesis

Keeping the objectives of the study in view, an attempt has been made to test the following hypothesis:

- There is a significant relationship among the opinions of post graduate students, research scholars, and faculty members toward the purpose of visiting the library.

Methodology

The survey method was adopted for the present study. The study is based on theoretical as well as empirical data. The theoretical framework will be prepared on the basis of published and unpublished sources. The existing situation of library and information services in agricultural university libraries in south India is assessed on the basis of the primary and secondary data collected. To collect data, the questionnaire was circulated to each agricultural university librarian.

Analysis and Interpretation of Data

The data has been analyzed using frequency and percentage as well as a chi-square test.

User Information

The population of this study consists of three categories of users: post graduate students, research scholars, and faculty members. Since the population size is very large, random sampling was applied. The post graduate student was limited to 25 percent of their total population, while the sample size for research scholars and faculty members was 20 percent. The sample includes all south Indian agricultural universities. The details of population size and sample selected appear in Table 1.

Population and Sample Size

Table 1: Population and Sample Size

Name of the University	Total Population	Questionnaires Distributed	%	Total Respondents	%
UASB	895	200	22.34	163	81.50
ANGRAUH	802	200	24.93	146	73.00
TNAUC	1164	200	17.18	154	77.00
KAUT	836	200	23.92	147	73.50
UASD	699	200	28.61	155	77.50
Total	4396	1000	20.25	765	76.50

UASB	= University of Agricultural Sciences Bangalore
ANGRAUH	= Acharya N.G. Ranga Agricultural University Hyderabad.
TNAUC	= Tamil Nadu Agricultural University Coimbatore.
KAUT	= Kerala Agricultural University Thrissur
UASD	= University of Agricultural Sciences Dharwad.

Table 1 shows the entire population and the sample size of respondents. There were a total of 4,396 users, of which 1,000 were chosen as a sample. Out of 1,000 respondents, 765 returned the questionnaire, a response rate of 76.5 percent. In the case of university librarians, the response is 100 percent, since the researcher visited each university and personally distributed and collected the questionnaires.

Characteristics of respondents are reported in tables 1 to 5. The highest percentage of response came from the University of Agricultural Sciences Library, Bangalore, followed by University of Agricultural Sciences Library, Dharwad, Tamil Nadu Agricultural University Library, Coimbatore, Kerala Agricultural University Library, Thrissur, and Acharya N.G. Ranga Agricultural University Library, Hyderabad.

Gender Distribution

Table 2: Gender Distribution

University	Questionnaires Distributed	Male	Female	Total
UASB	200	120 (15.68)	43 (5.62)	163 (21.30)
ANGRAUH	200	109 (14.24)	37 (4.83)	146 (19.08)
TNAUC	200	115 (15.03)	39 (5.09)	154 (20.13)
KAUT	200	110 (14.37)	37 (4.83)	147 (19.21)
UASD	200	116 (15.16)	39 (5.09)	155 (20.26)
Total	1000	570 (74.50)	195 (25.49)	765 (100.00)

(Figures in parentheses indicate percentage)

More than three quarters of respondents are male.

Language Distribution

Table 3: Language Distribution of Respondents

Language	UASB	ANGRAUH	TNAUC	KAUT	UASD	Total
English	163 (100.00)	146 (100.00)	154 (100.00)	147 (100.00)	155 (100.00)	765 (100.00)
Hindi	118 (72.39)	109 (74.66)	117 (75.97)	79 (53.74)	117 (75.48)	540 (70.59)
Kannada	83 (50.92)	23 (15.75)	13 (8.44)	27 (18.37)	99 (63.87)	245 (32.03)
Telugu	34 (20.86)	84 (57.53)	43 (27.92)	15 (10.20)	44 (28.39)	220 (28.76)
Tamil	10 (6.13)	22 (15.07)	83 (53.90)	16 (10.88)	3 (1.94)	134 (17.52)
Malayalam	15 (9.20)	20 (13.70)	29 (18.83)	85 (57.82)	16 (10.32)	165 (21.57)

Note: Because of multiple answers the percentages do not add up to 100 percent.

All respondents are proficient in English. Seventy percent have proficiency in the national language, Hindi. Since the study is confined to south Indian agricultural universities, regional languages also play an important role, with Kannada at 32 percent, Telugu at 28.76 percent, Tamil at 17.52 percent, and Malayalam with 21.57 percent.

Age Distribution of Respondents

Table 4: Age Distribution

Age	UASB	ANGRAUH	TNAUC	KAUT	UASD	Total
21-30	109 (66.87)	91 (62.33)	108 (70.13)	108 (73.47)	112 (72.26)	528 (69.02)
31-40	21 (12.88)	21 (14.38)	26 (16.88)	22 (14.97)	16 (10.32)	106 (13.86)
41-50	27 (16.56)	29 (19.86)	16 (10.39)	14 (9.52)	23 (14.84)	109 (14.25)
51-Above	6 (3.68)	5 (3.42)	4 (2.60)	3 (2.04)	4 (2.58)	22 (2.88)
Total	163 (100.00)	146 (100.00)	154 (100.00)	147 (100.00)	155 (100.00)	765 (100.00)

Nearly 70 percent of respondents are between 21 and 30.

Evaluation of Library and Information Services in Agricultural University Libraries in South India

University Library Membership

University libraries generally provide membership to their postgraduate students, research scholars, and faculty members. Membership and the circulation of books are interdependent. To encourage membership and circulation, the library collection, efficiency of the library staff, location of library building, and library hours are all important. The library must have a rich collection in the subjects taught in the university and in which research is being conducted. Efficiency of the staff means that a library must have an up-to-date catalogue, with books that are properly classified according to a set scheme of classification and arranged properly on the shelves. The library must be centrally located on campus and close to teaching departments and their laboratories. Similarly, the library should remain open for the maximum number of hours. All these factors affect the membership and circulation of books.

Respondents by Category

Table 5: Respondents by Category

Membership	Option	UASB	ANGRAUH	TNAUC	KAUT	UASD	Total
Post Graduate Students	Yes	94 (100.00)	84 (100.00)	89 (100.00)	85 (100.00)	92 (100.00)	444 (100.00)
	No	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Research Scholars	Yes	34 (100.00)	30 (100.00)	33 (100.00)	32 (100.00)	32 (100.00)	161 (100.00)
	No	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Faculty Members	Yes	35 (100.00)	32 (100.00)	32 (100.00)	30 (100.00)	31 (100.00)	160 (100.00)
	No	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)
Total Response with Percentage		163 (21.30)	146 (19.08)	154 (20.13)	147 (19.21)	155 (20.26)	765 (100.00)

All the respondents under the study are members of the university library. Among member, more than half are postgraduate students.

Types of Libraries Used

Table 6: Types of Libraries and Frequency of their Uses

Types of Libraries	UASB	ANGRAUH	TNAUC	KAUT	UASD	Total
The University Central Library	163 (100.00)	146 (100.00)	154 (100.00)	147 (100.00)	155 (100.00)	765 (100.00)
The College Library	98 (60.12)	100 (68.49)	107 (69.48)	94 (63.95)	86 (55.48)	485 (63.40)
The Department Library	119 (73.01)	86 (58.90)	99 (64.29)	97 (65.99)	81 (52.26)	482 (63.01)
The Regional Library	12 (7.36)	21 (14.38)	19 (12.34)	15 (10.20)	24 (15.48)	91 (11.90)
All of the Above	20 (12.27)	32 (21.92)	18 (11.69)	26 (17.69)	33 (21.29)	129 (16.86)

Note: Because of multiple choices the percentages do not add up to 100 percent.

Frequency of Library Visits

Information is the essential element for the progress of higher education and plays a vital role in national progress. Proper use of information is directly related to the growth of study, research, and teaching facilities. The use of the library can be measured in various ways. One such way is the frequency of user visits to the library. Frequency of use is an important indicator of its relative importance.

Table 7: Frequency of Library Visit

Frequency of Visit	UASB	ANGRAUH	TNAUC	KAUT	UASD	Total
Daily	76 (46.63)	69 (47.26)	61 (39.61)	60 (40.82)	65 (41.94)	331 (43.27)
Twice-in-a week	43 (26.38)	46 (31.51)	44 (28.57)	46 (31.29)	51 (32.90)	230 (30.07)
Once-in-a-week	25 (15.34)	18 (12.33)	21 (13.64)	21 (14.29)	16 (10.32)	101 (13.20)
Fortnightly	7 (4.29)	1 (0.68)	12 (7.79)	5 (3.40)	7 (4.52)	32 (4.18)
Once-in-a-month	3 (1.84)	3 (2.05)	8 (5.19)	5 (3.40)	6 (3.87)	25 (3.27)
Occasionally	9 (5.52)	9 (6.16)	8 (5.19)	10 (6.80)	10 (6.45)	46 (6.01)
Total	163 (100.00)	146 (100.00)	154 (100.00)	147 (100.00)	155 (100.00)	765 (100.00)

Slightly less than half of users visit the library daily. An almost equal number use the library once a week or twice a week.

Time Spent in Libraries

It is not the frequency but the time spent that is an important criterion in evaluating use of the library. Table 8 identifies the time spent in the library by users on each visit.

Table 8: Time Spent in the Library by Users on Each Visit

Time Spent Each Visit	UASB	ANGRAUH	TNAUC	KAUT	UASD	Total
Below 1/2 hour	1 (0.61)	2 (1.37)	3 (1.95)	2 (1.36)	2 (1.29)	10 (1.31)
1/2 hour to 1 hour	36 (22.09)	35 (23.97)	40 (25.97)	35 (23.81)	41 (26.45)	187 (24.44)
1 hour to 2 hours	83 (50.92)	73 (50.00)	78 (50.65)	76 (51.70)	83 (53.55)	393 (51.37)
2 hours to 4 hours	37 (22.70)	30 (20.55)	29 (18.83)	29 (19.73)	23 (14.84)	148 (19.35)
4 hours to 6 hours	6 (3.68)	6 (4.11)	4 (2.60)	5 (3.40)	6 (3.87)	27 (3.53)
Total	163 (100.00)	146 (100.00)	154 (100.00)	147 (100.00)	155 (100.00)	765 (100.00)

Just over half of respondents spent one to two hours in the library during their visits. About one-fifth spent two to four hours, and one quarter spent less than an hour.

Acceptance of User Recommendations in Purchasing

Reasons for visiting the library give a clue to the documents and information that library users are interested in, which helps develop need-based document collections and other services and facilities.

Table 9: Acceptance of User Recommendations in Purchasing

Users Recommendation	Option	UASB	ANGRAUH	TNAUC	KAUT	UASD	Total
Post-Graduate Students	Yes	17 (18.09)	27 (32.14)	10 (11.24)	16 (18.82)	31 (33.70)	101 (22.74)
	No	77 (81.91)	57 (67.86)	79 (88.76)	69 (81.18)	61 (66.30)	343 (77.25)
Research Scholars	Yes	15 (44.12)	6 (20.00)	8 (24.24)	12 (37.50)	4 (12.50)	45 (27.95)
	No	19 (55.88)	24 (80.00)	25 (75.76)	20 (62.50)	28 (87.50)	116 (72.04)
Faculty Members	Yes	24 (68.57)	21 (65.63)	28 (87.50)	21 (70.00)	31 (100.00)	125 (78.12)
	No	11 (31.43)	11 (34.38)	4 (12.50)	9 (30.00)	0 (0.00)	35 (21.87)

Only about one quarter of postgraduate students said that their recommendations were acquired by the library. The same is generally true for research scholars. Faculty members, however, play a major role in the selection process. More than three quarters of faculty members surveyed said that their requests to acquire material were honored.

Standard of Books and Periodicals

Table 10: Standard of Books and Periodicals

Recommendation of Specialized Subject	UASB	ANGRAUH	TNAUC	KAUT	UASD	Total
Very high	11 (6.75)	10 (6.85)	11 (7.14)	11 (7.48)	12 (7.74)	55 (7.19)
Relatively High	48 (29.45)	38 (26.03)	55 (35.71)	39 (26.53)	46 (29.68)	226 (29.54)
Average	83 (50.92)	79 (54.11)	77 (50.00)	77 (52.38)	81 (52.26)	397 (51.90)
Poor	18 (11.04)	15 (10.27)	8 (5.19)	15 (10.20)	14 (9.03)	70 (9.15)
Cannot say	3 (1.84)	4 (2.74)	3 (1.95)	5 (3.40)	2 (1.29)	17 (2.22)

Table 10 displays the standards of books and periodicals in the different libraries. More than half of respondents rate the library collections as average.

Purpose of Library Visits

Frequency of visits is important, but more important is the purpose of visits to the library, which helps to assess its use.

Table 11: Purpose of Library Visits

	Yes			No			Chi-Square Value
	PGS	RS	FM	PGS	RS	FM	
Use and Borrow/Return Books	444 (100.00)	161 (100.00)	160 (100.00)	0 (0.00)	0 (0.00)	0 (0.00)	-----
Consult Periodicals/Journals	410 (92.34)	154 (95.65)	143 (89.38)	34 (7.66)	6 (3.73)	17 (10.63)	10.34
Consult Reference Works	341 (76.80)	126 (78.26)	124 (77.50)	103 (23.20)	35 (21.74)	36 (22.50)	10.03
Use Reports/Proceedings	270 (60.81)	92 (57.14)	98 (61.25)	174 (39.19)	69 (42.86)	62 (38.75)	10.30
Use Theses and Dissertations	310 (69.82)	125 (77.64)	113 (70.63)	134 (30.18)	36 (22.36)	47 (29.38)	11.03
Viva Voce and Practical Examinations	184 (41.44)	82 (50.93)	51 (31.88)	260 (58.56)	79 (49.07)	109 (68.13)	17.03
Research	370 (83.33)	140 (86.96)	129 (80.63)	74 (16.67)	21 (13.04)	31 (19.38)	10.39
Prepare for Examination	266 (59.91)	108 (67.08)	92 (57.50)	178 (40.09)	53 (32.92)	68 (42.50)	11.38
Prepare for ASRB/UGC NET Exams	167 (37.61)	76 (47.20)	62 (38.75)	277 (62.39)	85 (52.80)	98 (61.25)	12.79
Write Assignments and Articles	174 (39.19)	65 (40.37)	61 (38.13)	270 (60.81)	96 (59.63)	99 (61.88)	10.10
Participate in Seminar/Conference, etc.	260 (58.56)	99 (61.49)	129 (80.63)	184 (41.44)	62 (38.51)	31 (19.38)	19.14
Professional Information/Updating Knowledge	296 (66.67)	104 (64.60)	100 (62.50)	148 (33.33)	57 (35.40)	60 (37.50)	10.33
Projects	216 (48.65)	87 (54.04)	75 (46.88)	228 (51.35)	76 (47.20)	85 (53.13)	10.95
Read Newspapers and Magazines	313 (70.50)	115 (71.43)	106 (66.25)	131 (29.50)	46 (28.57)	54 (33.75)	10.38
Browse Internet	210 (47.30)	88 (54.66)	100 (62.50)	234 (52.70)	73 (45.34)	60 (37.50)	15.49

All respondents visit the library to use the resources and borrow or return books. Nearly all visit the library for consulting periodicals and journals and more than three quarters visit the library to consult reference materials. Large numbers also use reports and proceedings and theses and dissertations. Other important reasons were to prepare for examinations and to do research.

Hypothesis 1

There is a significant relationship among the opinions of postgraduate students, research scholars, and faculty members towards the purpose of visiting the library. Table 11 shows a significant relationship among the different users towards the purpose of visiting the library. This is tested with a chi-

square test. The value of the chi-square shows that each purpose is highly significant at the 0.5 percent level of significance. Hence, the Hypothesis is accepted.

User Document Preferences

The agricultural university library must fulfill the needs of users. They need highly specialized and advanced material on the subject of their study. It is necessary to know whether existing collections are adequate enough to meet the information requirements of users in their academic, research development, and publication work.

Table 12: User's Preference of Types of Adequate Documents

Document Collections	Most Adequate				Adequate				Moderately			
	PGS	RS	FM	Total	PGS	RS	FM	Total	PGS	RS	FM	Total
Text Books	81 (18.24)	30 (18.63)	26 (16.25)	137 (17.90)	167 (37.61)	68 (42.24)	72 (45.00)	307 (40.13)	138 (31.08)	42 (26.09)	46 (28.75)	226 (29.54)
Reference Books	121 (27.25)	30 (18.63)	14 (8.75)	165 (21.56)	209 (47.07)	53 (32.92)	68 (42.50)	330 (43.13)	95 (21.40)	42 (26.09)	60 (37.50)	197 (25.75)
Agricultural journals	115 (25.90)	35 (21.74)	27 (16.88)	177 (23.13)	189 (42.57)	37 (22.98)	62 (38.75)	288 (37.64)	85 (19.14)	49 (30.43)	42 (26.25)	176 (23.00)
Research Reports	103 (23.20)	25 (15.53)	23 (14.38)	151 (19.73)	156 (35.14)	53 (32.92)	51 (31.88)	260 (33.98)	107 (24.10)	48 (29.81)	55 (34.38)	210 (27.45)
Abstracting/Indexing Journals	90 (20.27)	35 (21.74)	22 (13.75)	147 (19.21)	115 (25.90)	61 (37.89)	86 (53.75)	262 (34.24)	128 (28.83)	42 (26.09)	35 (21.88)	205 (26.79)
Thesis/Dissertations	133 (29.95)	53 (32.92)	30 (18.75)	216 (28.23)	184 (41.44)	72 (44.72)	69 (43.13)	325 (42.48)	92 (20.72)	29 (18.01)	50 (31.25)	171 (22.35)
Audio/ Video Materials	19 (4.28)	8 (4.97)	5 (3.13)	32 (4.18)	36 (8.11)	13 (8.07)	29 (18.13)	78 (10.19)	88 (19.82)	38 (23.60)	50 (31.25)	176 (23.00)
CD ROM Databases	40 (9.01)	14 (8.70)	6 (3.75)	60 (7.84)	80 (18.02)	3 (1.86)	41 (25.63)	124 (16.20)	108 (24.32)	65 (40.37)	43 (26.88)	21600 (28.23)
E-Books	12 (2.70)	1 (0.62)	4 (2.50)	17 (2.22)	18 (4.05)	8 (4.97)	8 (5.00)	34 (4.44)	30 (6.76)	14 (8.70)	17 (10.63)	61 (7.97)
E-Journals	9 (2.03)	1 (0.62)	4 (2.50)	14 (1.83)	16 (3.60)	6 (3.73)	9 (5.63)	31 (4.05)	36 (8.11)	14 (8.70)	17 (10.63)	67 (8.75)

Table 12, part 2

Document Collections	Inadequate				Not at all Adequate			
	PGS	RS	FM	Total	PGS	RS	FM	Total
Text Books	51 (11.49)	20 (12.42)	16 (10.00)	87 (11.37)	7 (1.58)	1 (0.62)	0 (0.00)	8 (1.04)
Reference Books	16 (3.60)	31 (19.25)	18 (11.25)	65 (8.49)	3 (0.68)	5 (3.11)	0 (0.00)	8 (1.04)
Agricultural journals	31 (6.98)	31 (19.25)	27 (16.88)	89 (11.63)	24 (5.41)	9 (5.59)	2 (1.25)	35 (4.57)
Research Reports	55 (12.39)	32 (19.88)	29 (18.13)	116 (15.16)	23 (5.18)	3 (1.86)	2 (1.25)	28 (3.66)
Abstracting/Indexing Journals	76 (17.12)	14 (8.70)	9 (5.63)	99 (12.94)	35 (7.88)	9 (5.59)	8 (5.00)	52 (6.79)
Thesis/ Dissertations	26 (5.86)	6 (3.73)	5 (3.13)	37 (4.83)	9 (2.03)	1 (0.62)	6 (3.75)	16 (2.09)
Audio/ Video Materials	137 (30.86)	45 (27.95)	49 (30.63)	231 (30.19)	164 (36.94)	57 (35.40)	27 (16.88)	248 (32.41)
CD ROM Databases	111 (25.00)	42 (26.09)	55 (34.38)	208 (27.18)	105 (23.65)	37 (22.98)	15 (9.38)	157 (20.52)
E-Books	116 (26.13)	50 (31.06)	47 (29.38)	213 (27.84)	268 (60.36)	88 (54.66)	84 (52.50)	440 (57.51)
E-Journals	107 (24.10)	58 (36.02)	45 (28.13)	210 (27.45)	276 (62.16)	82 (50.93)	85 (53.13)	443 (57.90)

A majority of users found the collections of textbooks, reference sources, and documents to be adequate. This view also held for journals in the field of agriculture and allied sciences, research reports, abstracting and indexing journals, and theses and dissertations. On the other hand, users expressed dissatisfaction with audiovisual materials, CD-ROM databases, e-books, and e-journals. This table shows that the traditional sources of information are adequately available in agricultural university libraries, where as the AV materials and e-resources are totally inadequate.

Type of Documents

Table 13 shows the usefulness of documents in agricultural science universities. More than one half of users found the textbook collections is very useful or useful, and the same is true for reference works, journals, abstracting and indexing services, and theses and dissertations. The collections of electronic and audiovisual material were not found as useful, probably because the numbers of these resources are much smaller.

Library Organization

For a library collection to be useful, it must be systematically and scientifically planned. Systematic organization of library materials and equipment in good working order are necessary to ensure easy availability. The organization of the library collection should help in easy retrieval of documents.

The Use of Library Tools

Information is a basic resource for any kind of professional activity. Every researcher wants specific information depending upon their nature of work.

Table 14: Sources of Information about library and library resources

Use of Library and Library Tools	UASB	ANGRAUH	TNAUC	KAUT	UASD	Total
Self Taught	82 (50.31)	87 (59.59)	74 (48.05)	79 (53.74)	96 (61.94)	418 (54.64)
From Library Staff	152 (93.25)	133 (91.10)	150 (97.40)	138 (93.88)	140 (90.32)	713 (93.20)
From Faculty	23 (14.11)	24 (16.44)	27 (17.53)	22 (14.97)	32 (20.65)	128 (16.73)
From Friends	87 (53.37)	73 (50.00)	59 (38.31)	62 (42.18)	60 (38.71)	341 (44.58)
Brochure/ Manual	144 (88.34)	124 (84.93)	131 (85.06)	126 (85.71)	125 (80.65)	650 (84.97)
User Education Programme	135 (82.82)	114 (78.08)	98 (63.64)	104 (70.75)	90 (58.06)	541 (70.72)

Note: Because of multiple choices the percentages do not add up to 100 percent.

More than half of respondents teach themselves about library tools, but nearly all of them also learn from library staff, with more than 70 percent also learning from library user education programs.

User Satisfaction with Library Organization

Table 15: User Satisfaction with Organization of Reading Materials

Aspects	Users Category	Very good	Good	Uncertain	Very Poor	Poor	M	SD	CV
Directional signs/guides are clear and helpful	PGS	100 (22.52)	252 (56.76)	48 (10.81)	31 (6.98)	13 (2.93)	13 (2.93)	2.11	0.93
	RS	47 (29.19)	63 (39.13)	21 (13.04)	22 (13.66)	8 (4.97)	8 (4.97)	2.26	1.16
	FM	42 (26.25)	106 (66.25)	8 (5.00)	2 (1.25)	2 (1.25)	2 (1.25)	1.85	0.67
Library resources can be easily located	PGS	92 (20.72)	211 (47.52)	83 (18.69)	41 (9.23)	17 (3.83)	17 (3.83)	2.28	1.01
	RS	34 (21.12)	80 (49.69)	18 (11.18)	20 (12.42)	9 (5.59)	9 (5.59)	2.32	1.11
	FM	38 (23.75)	103 (64.38)	19 (11.88)	0 (0.00)	0 (0.00)	0 (0.00)	1.88	0.58
The Library materials are properly shelved	PGS	93 (20.95)	194 (43.69)	96 (21.62)	45 (10.14)	16 (3.60)	16 (3.60)	2.32	1.03
	RS	25 (15.53)	79 (49.07)	24 (14.91)	21 (13.04)	12 (7.45)	12 (7.45)	2.48	1.13
	FM	31 (19.38)	99 (61.88)	28 (17.50)	1 (0.63)	1 (0.63)	1 (0.63)	2.01	0.67
Library material is properly reshelved	PGS	69 (15.54)	191 (43.02)	90 (20.27)	76 (17.12)	18 (4.05)	18 (4.05)	2.51	1.07
	RS	26 (16.15)	60 (37.27)	43 (26.71)	21 (13.04)	11 (6.83)	11 (6.83)	2.57	1.11
	FM	17 (10.63)	96 (60.00)	27 (16.88)	16 (10.00)	4 (2.50)	4 (2.50)	2.34	0.89
Library materials are in good condition	PGS	57 (12.84)	174 (39.19)	110 (24.77)	75 (16.89)	28 (6.31)	28 (6.31)	2.65	1.10
	RS	19 (11.80)	75 (46.58)	32 (19.88)	24 (14.91)	11 (6.83)	11 (6.83)	2.58	1.09
	FM	17 (10.63)	113 (70.63)	22 (13.75)	6 (3.75)	2 (1.25)	2 (1.25)	2.14	0.70
Library has a way of tracking document location	PGS	77 (17.34)	170 (38.29)	80 (18.02)	63 (14.19)	54 (12.16)	54 (12.16)	2.66	1.26
	RS	22 (13.66)	65 (40.37)	27 (16.77)	30 (18.63)	17 (10.56)	17 (10.56)	2.72	1.22
	FM	24 (15.00)	80 (50.00)	43 (26.88)	12 (7.50)	1 (0.63)	1 (0.63)	2.29	0.83

M - Mean, SD - Standard Deviation, CV - Coefficient of Variation,

Table 15 shows that user satisfaction is the ultimate goal for any library. A large majority of respondents find the library's directional signs useful, large numbers report being able to easily locate required information, and a clear majority found material shelved properly. Fifty to eighty percent of

respondents find the collection in good condition, and all users are satisfied with the organization of reading materials in their respective libraries.

The statistical measures of concentration and dispersion of user satisfaction among different university libraries is also presented in Table 15. The coefficient of variation (CV) is least in faculty members and their opinion is consistent compared to other categories of users. Hence, faculty members are more satisfied than others with the organization of reading materials.

Library Equipment

Table 16: Library Equipment

Working Conditions	Option	UASB	ANGRAUH	TNAUC	KAUT	UASD	Total
Photocopier/ Xerox	Yes	146 (89.57)	132 (90.41)	135 (87.66)	133 (90.48)	116 (74.84)	662 (86.54)
	No	17 (10.43)	14 (9.59)	19 (12.34)	14 (9.52)	39 (25.16)	103 (13.46)
Audio/Visual Aids	Yes	27 (16.56)	21 (14.38)	24 (15.58)	18 (12.24)	22 (14.19)	112 (14.64)
	No	136 (83.44)	125 (85.62)	130 (84.42)	129 (87.76)	133 (85.81)	653 (85.36)
Microfilm/ Microfiche Readers	Yes	79 (48.47)	78 (53.42)	85 (55.19)	82 (55.78)	77 (49.68)	401 (52.42)
	No	84 (51.53)	68 (46.58)	69 (44.81)	65 (44.22)	78 (50.32)	364 (47.58)
Computer Systems	Yes	129 (79.14)	107 (73.29)	117 (75.97)	117 (79.59)	116 (74.84)	586 (76.60)
	No	34 (20.86)	39 (26.71)	37 (24.03)	30 (20.41)	39 (25.16)	179 (23.40)
Printers	Yes	138 (84.66)	103 (70.55)	125 (81.17)	114 (77.55)	110 (70.97)	590 (77.12)
	No	25 (15.34)	43 (29.45)	29 (18.83)	33 (22.45)	45 (29.03)	175 (22.88)
Scanners	Yes	34 (20.86)	26 (17.81)	38 (24.68)	28 (19.05)	37 (23.87)	163 (21.31)
	No	129 (79.14)	120 (82.19)	116 (75.32)	119 (80.95)	118 (76.13)	602 (78.69)
Internet Facility	Yes	119 (73.01)	107 (73.29)	108 (70.13)	111 (75.51)	118 (76.13)	563 (73.59)
	No	44 (26.99)	39 (26.71)	46 (29.87)	36 (24.49)	37 (23.87)	202 (26.41)

Opinions about the condition of library equipment are depicted in Table 16. Photocopy machines, computers, and Internet access are found to work well by a large majority of respondents, while audiovisual aids and microform readers are not.

Conclusion

Since India is a land of farmers, socioeconomic development depends on the education of farmers and their information level. They need information to become enlightened and rational and to make quick and correct decisions to improve rural life. The nature of information services provided by the agricultural university libraries vary from one to another, owing to the range of interest of the user community. With the emergence of the computer and revolutionary changes in communication technology, it has become possible for agricultural university libraries to provide a variety of technology-based information services to users with a wide range of interests.

The libraries under study are in the initial stage of development. Modern technologies in the libraries are now being used to satisfy the information need of users. The people working in these libraries need training and exposure to new technologies. There is a need to develop the culture of interlibrary loan services and electronic transmission of documents. Databases of theses, journal articles, and library catalogues must be made available to users.

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