

## Information seeking behaviour of faculty members of agricultural universities in Karnataka: A case study

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### Abstract

This study main focus to objectives, methodology and analysis and interpretation of data collected through questionnaire and interview survey method to the following Six Agricultural Universities of Karnataka. Out of 691 respondents data was collected from the six universities with different academic positions viz., Assistant Professor, Associate Professor and Professor. The highest respondents KVAFSU-B 205, UAS-B 128, UHS-B 122, UAS-D 101, UAHS-S 74 and lastly UAS-R 61 respondent's data was collected respectively.

**Keywords:** ISB (Information Seeking Behaviour), KSAU (Karnataka State Agricultural Universities), Journals, Search Engines and AIS (Agriculture Information Systems)

### Introduction

The main purpose of this study is to examine the Information Seeking Behaviour (ISB) of the faculty members of the Agricultural Universities in Karnataka State. The Faculty members can avail to seek the information at large extent in Agricultural Universities for strengthening their academic and research activities and improvement of quality of agriculture education system in Indian context. The study has revealed to conduct for achieving the broader view of research problem /statement namely "Information Seeking Behaviour of Faculty Members of Agricultural Universities in Karnataka: A case Study." Information Seeking Behaviour is an essential component in the designing and developing of need based information centres for meeting the information requirements of the users. The library will be in a better position to understand the education system by conducting the information seeking behaviour study of their library users and accordingly proper planning, management, acquisition, organization, presentation and rendering various services and continuous collection development etc. There should be no gap between the academic needs and relevant Research & Development.

### Objectives

The main objective of the present study is to in calculate to know the information seeking behaviour of faculty members of selected universities in Karnataka state. The following objective is to test is hypothetical statement about the information seeking behaviour.

1. To compare the information seeking behaviour of faculty members or scientist through cascade linkage model

2. To compare the most important emerging areas of information in field of agriculture & allied sciences
3. To identify the different sources of information available on open sources via electronic media
4. Attempt to know the new agricultural innovation information transfer from selected respondents agriculture/scientist
5. To correlation between information behaviour with respect to agricultural technological transfer from open source
6. To develop information seeking behaviour model selected agriculture universities.

### Methodology

The study includes information pertaining to the research methodology, population, sample, data collection and analysis.

### Research Methodology

1. A comprehensive review of literature covering the period 2004 - 2018
2. Survey method will be employed to study of Information Seeking Behaviour of Faculty Members of Agricultural Universities in Karnataka
3. Questionnaire will be framed to collect the feedback from faculty members to meet the objectives of this study.
4. Data collected will be subjected for statistical analysis to prove objectives and hypothesis

**Table 1:** Sample population and response details of the Faculty

S. No	Universities	Sample selected and Questionnaire distributed	Response Received	Response Rate
1	UAS-B	225	128	56.88%

2	UAS-D	155	101	65.16%
3	KVAFSU-B	275	205	74.54%
4	UAS-R	95	61	64.21%
5	UHS-B	165	122	73.93%
6	UAHS-S	105	74	70.47%
<b>Total</b>		<b>1020</b>	<b>691</b>	<b>67.74%</b>

The following six tables given the details of the questionnaire distributed among the faculty members of the six universities and the colleges carrying under each universities the highest sample collected in KVAFSU-B 205(74.54%) followed by UHS-B 122(73.94%), UAHS-S 74(70.48%), UAS-D 101(65.16%), UAS-R 61(64.21%) and least was UAS-B (56.89%).

**Table 2:** Frequency distribution of respondents by designation

S. No	Universities	Assistant Professor	Associate Professor	Professor	Total
1	UAS-B	62	14	52	128
2	UAS-D	35	9	57	101
3	KVAFSU- B	138	29	38	205
4	UAS-R	47	3	11	61
5	UHS-B	99	9	14	122
6	UAHS-S	50	2	22	74
<b>Total</b>		<b>431</b>	<b>66</b>	<b>194</b>	<b>691</b>
<b>Chi-square</b>		$\chi^2 = 93.109, df = 10, \chi^2/df = 9.31, P(\chi^2 > 93.109) = 0.0000$			

From table 2 shows that, the frequency distribution relating to the respondents by designation of Karnataka State Agricultural University (KSAU). Out of 691 respondents data was collected from the six universities with different academic positions viz., Assistant Professor, Associate Professor and Professor. The highest respondents KVAFSU-B 205 data was collected, UAS-B 128 respondent's data was collected, UHS-B 122 respondent's data was collected, UAS-D 101 respondent's data was collected, UAHS-S 74 respondent's data was collected and lastly UAS-R 61 respondent's data was collected respectively. The respondent designation is found to be significantly correlated with universities ( $\chi^2 = 93.109^{**}, p=0.000$ )

**Table 3:** Frequency distribution of respondents by age

S. No	Age Class	UAS-B	UAS-D	KVAFSU-B	UAS-R	UHS-B	UAHS-S	Total
1	<30 Years	32	23	89	15	32	13	204
2	31-40	54	32	56	18	36	15	211
3	41-50	32	33	45	16	33	20	179
4	51-60	10	13	15	12	21	26	97
<b>Total</b>		<b>128</b>	<b>101</b>	<b>205</b>	<b>61</b>	<b>122</b>	<b>74</b>	<b>691</b>
<b>Chi-square</b>		$\chi^2 = 68.538^{**}, df = 15, \chi^2/df = 4.57, P(\chi^2 > 68.538) = 0.0000$						

The frequency distribution of respondents based on age is shown in table.<sup>3</sup> It can be observed from the resulted findings, a four age classes has characterized from the respondents, the highest age group between 31-40 years 211, less than < 30 years 204, the age group between 41-50 years comprises 179 and the age group between 51-60 years comprises 97 out of 691 respectively. The respondent age is found to be significantly correlated with universities ( $\chi^2 = 68.538^{**}p=0.000$ )

**Table 4:** Frequency distribution of respondents by sex

S. No	Universities	Male	Female	Total
1	UAS-B	39	89	128
2	UAS-D	73	28	101
3	KVAFSU- B	154	51	205
4	UAS-R	50	11	61
5	UHS-B	99	23	122
6	UAHS-S	57	17	74
<b>Total</b>		<b>472</b>	<b>219</b>	<b>691</b>

The above tables given the out of 691 gender wise respondents 472 are male members and 219 are female members respectively.

**Table 5:** Frequency distribution of respondents by qualification

S. No	Universities	PG	M.Phil.	Ph.D.
1	UAS-B	85	2	32
2	UAS-D	86	0	36
3	KVAFSU- B	95	3	33
4	UAS-R	76	0	38
5	UHS-B	74	1	30
6	UAHS-S	72	0	28
<b>Total</b>		<b>488</b>	<b>6</b>	<b>197</b>
<b>Chi-square</b>		$\chi^2 = 8.836, df = 10, \chi^2/df = 0.88, P(\chi^2 > 8.836) = 0.5478$		

The above table shows that out of 691 respondents 488 are the Post-Graduation holders, whereas 197 with Ph.D. and remaining 6 are with M.Phil. Degree respectively. The education were found to be significantly correlated with ISB's,  $P(\chi^2 > 8.836) = 0.5478$

**Table 6:** Number of experience of respondents

S. No	Experience in Years	Professor	Associate Professor	Assistant Professor	Total
1	<5 Yrs.	0	1	185	186
2	6-10 Yrs.	3	6	153	162
3	11-20 Yrs.	32	12	85	129
4	21-25 Yrs.	35	13	5	53
5	26-30 Yrs.	59	16	1	76
6	>30 Yrs.	65	18	2	85
<b>Total</b>		<b>194</b>	<b>66</b>	<b>431</b>	<b>691</b>
<b>Chi-square</b>		$\chi^2 = 499.937, df = 10, \chi^2/df = 49.99, P(\chi^2 > 499.937) = 0.0000$			

Table (6) depicted the frequency distribution of respondents with respect to year of experience category to be correlated with different level or academic positions. As per the table shows that among 691 respondents < 5 years experience was accrued 186, 6-10 years 162, 11-20 years 129, >30 years 85, 26-30 years was 76 and 21-25 years 53. The year of experience was found to be significant  $\chi^2/df = 49.99, P(\chi^2 > 499.937) = 0.0000$ .

**Table 7:** Present assignment frequency distribution of the respondents

S. No	Universities	Teaching	Teaching & Research	Extension	Total
1	UAS-B	98	22	8	128
2	UAS-D	62	37	2	101
3	KVAFSU- B	163	32	10	205
4	UAS-R	32	23	6	61
5	UHS-B	76	35	11	122
6	UAHS-S	45	15	14	74
<b>Total</b>		<b>476</b>	<b>164</b>	<b>51</b>	<b>691</b>
<b>Chi-square</b>		$\chi^2 = 51.127, df = 10, \chi^2/df = 5.11, P(\chi^2 > 51.127) = 0.0000$			

The frequency distribution present assignment frequency distribution of the respondents is presented in the Table (7). A total 476(68.88%) were actively engaged in teaching 164(23.73%) engaged teaching and research and 51(7.38%) respondents were engaged only in extension activities. Resulted findings were significantly correlated and found to be statistically significant differences with universities and present assignment frequency distribution  $P(\chi^2 > 51.127) = 0.0000$

**Table 8:** Searching methods of articles on subject basis at Karnataka State Agricultural Universities

S. No	Statements	Frequency	%	P-value
1	Citation at end of the book chapters / Journal articles	157	22.72	0.017
2	Retrospective sources (index/abstract methods)	117	16.93	0.008
3	Google scholar/Research Gate etc...	417	60.35	0.000

The frequency distribution of searching methods of articles on subject basis at Karnataka State Agricultural Universities presented in the table (8). The results driven by the test of independence statistical method, Citation at end of the book

chapters / Journal articles open ended frequency was 157(22.72%), Retrospective sources (index/abstract methods) 117(16.93%) and Google scholar / Research Gate 417(60.35%) respectively.

**Table 9:** Various section of technical /scientific journals status

S. No	Section of Journals	UAS-B		UAS-D		KVAFSU-B		UAS-R		UHS-B		UAHS-S		Total	
		Mean Score	SD	Mean Score	SD	Mean Score	SD	Mean Score	SD	Mean Score	SD	Mean Score	SD	Mean Score	SD
1	Professional News	85	6.3	82	3.1	76	5.6	69	6.3	69	6.8	72	5.8	75.50	5.65
2	Review articles	82	2.4	88	3.6	65	5.4	64	6.8	67	6.7	75	5.55	73.50	5.08
3	Original research papers	86	3.3	89	5.8	73	5.55	67	9.6	74	7.4	73	7.3	77.00	6.49
4	Editorial Comments	83	3.4	74	6.3	61	8.6	71	10.2	70	8.5	70	10.11	71.50	7.85
5	Abstract of original papers	74	3.6	76	6.4	77	10.2	72	10.55	72	11.26	64	11.23	72.50	8.87
6	New scientific equipment's, system products	78	5.8	78	6.1	76	10.11	63	13.6	71	13.85	68	15.63	72.33	10.85
7	Information about training / seminar etc...	70	5.9	80	8.12	72	10.63	60	14.22	69	14.66	64	10.89	69.17	10.74

The various section of technical and scientific journals status is presented in the Table (9) different section of journals were assessed based on the total score obtained from the individual respondents, the Professional News mean score was 75.50±5.65, Review articles 73.50±5.08, Original research papers 77.00±6.49, Editorial Comments 71.50±7.85, Abstract of original papers 72.50±8.87, New scientific equipment's, system products 72.33±10.85 and Information about training / seminar etc. 69.17±10.74 respectively.

**Table 10:** Obtain Journal articles

S. No	Obtain Journal articles	UAS-B		UAS-D		KVAFSU-B		UAS-R		UHS-B		UAHS-S		Total	
		No	%	No	%	No	%	No	%	No	%	No	%	No	%
1	Personnel Subscription to Print Journals	36	5.21	46	6.66	34	4.92	18	2.60	32	4.63	18	2.60	184	26.63
2	Personnel subscription to Online Journals	30	4.34	8	1.16	35	5.07	15	2.17	28	4.05	19	2.75	135	19.54
3	Library (s) print version	18	2.60	9	1.30	25	3.62	6	0.87	23	3.33	9	1.30	90	13.02
4	Library(s) online/electronic version	18	2.60	20	2.89	56	8.10	9	1.30	29	4.20	8	1.16	140	20.26
5	Data base, e archives etc.,	6	0.87	10	1.45	22	3.18	9	1.30	6	0.87	8	1.16	61	8.83
6	Inter library loan	13	1.88	4	0.58	21	3.04	3	0.43	3	0.43	10	1.45	54	7.81
7	Document delivery	7	1.01	4	0.58	12	1.74	1	0.14	1	0.14	2	0.29	27	3.91
<b>Total</b>		<b>128</b>	<b>18.52</b>	<b>101</b>	<b>14.62</b>	<b>205</b>	<b>29.67</b>	<b>61</b>	<b>8.83</b>	<b>122</b>	<b>17.66</b>	<b>74</b>	<b>10.71</b>	<b>691</b>	<b>100.00</b>

The obtain journal articles frequency distribution is presented in the Table (10) different section of journals were assessed based on frequency distribution Personnel Subscription to Print Journals 184(26.63%), Personnel subscription to Online Journals 135(19.54%), Library (s) print version 90(13.02%), Library(s) online/electronic version 140(20.26%), Data base, e archives etc., 61(8.83%), Inter library loan 54(7.81%) and Document delivery 27(3.91%) respectively.

**Table 11:** Frequently used search engines

S. No	Search engines	No	%
1	Google	592	85.67
2	Rediff	46	6.66
3	Yahoo	22	3.18
4	Lycos	1	0.14
5	Alta Vista	2	0.29
6	Web Crawler	1	0.14
7	MSN	25	3.62
8	Info seek	2	0.28
<b>Total</b>		<b>691</b>	<b>100</b>

The different search engine used gathering the information pertaining the research, academic needs of extension activities KSAU's. The following Google search engine was used by the faculty members highest Google 592(85.67%), Rediff 46 (6.66%), MSN 25(3.62%), Yahoo 22(3.18%), Alta Vista 2(0.29%), Info seek 2(0.29%), Lycos 1(0.14%), and Web Crawler 1(0.14%) respectively.

**Table 12:** Most frequently used Agriculture Information Systems (AIS)

S. No	AIS	UAS-B	UAS-D	KVAFSU-B	UAS-R	UHS-B	UAHS-S	Total
1	World Cat	13	9	22	4	9	9	66
2	Krishi Kosh	71	36	79	19	31	28	264
3	Krishi Prabha	29	47	45	26	63	26	236
4	Agri Cat	15	9	59	12	19	11	125
<b>Total</b>		<b>128</b>	<b>101</b>	<b>205</b>	<b>61</b>	<b>122</b>	<b>74</b>	<b>691</b>

Most frequently used agriculture information systems is presented in the table (12). The following open source data archives was used to collect the research papers pertaining to agriculture and allied areas of the heavily used Krishikosh 264(38.20%), followed by KrishiPrabha 236(34.15%), AgriCat 125(18.09%) and World Cat 66(9.55%) respectively.

**Table 13:** Visitors frequency library for seeking information

S. No	Class Intervals	Yes	%	No	%	P-value
1	20-30 Hrs. Per Week	50	7.23	6	0.87	0.00
2	10-20 Hrs. Per Week	30	4.34	2	0.29	0.00
3	5-10 Hrs. Per Week	50	7.23	5	0.72	0.00
4	<5 Hrs. Per Week	538	77.86	2	0.29	0.00
5	Not at all	8	1.15	0	0.00	0.23

The visitors frequency library of seeking information is presented in table (13) the class interval of visitors frequency as classified based on the hours pertaining to the frequency of the visits the above table categorized 5 classification. Bearing the classification <5 hours per week expressed 538(77.86%) followed by 5-10 hours was 50(7.23%), 20-30 hours 50(7.23%), 10-20 hours 30(4.34%) and the visitors Not at all visit library was 8(1.15%). The classification frequency of visit was found to be statistically significant accessing information seeking behavior presented in the following graphs.

**Table 14:** Request assistance for information gathering from library staff

S. No	Information gathering	No	%
1	Daily	263	38.06
2	Weekly	312	45.15
3	Rarely	98	14.18
4	Never	18	2.60
<b>Total</b>		<b>691</b>	<b>100</b>

The information gathering from library staff is presented in the table (14) the frequency of information gathering is rated 0-3 scale (Never-0, Rarely-1, Weekly-2, Daily-3) the highest frequency was observed in weekly interval 312(45.15%), followed by the daily 263(38.06%), rarely 98(14.18%) and never 18(2.60%) respectively.

**Table 15:** Think about library collections and other materials

S. No	Think about Library	No	%
1	Very Good	352	50.94
2	Good	255	36.90
3	Fair	63	9.12
4	Poor	12	1.74
5	No opinion	9	1.30
<b>Total</b>		<b>691</b>	<b>100.00</b>

The oral accepted in the general opinion of library collection and other materials access based on the 0-4 scale No opinion-0, Poor-1, Fair-2, Good-3 and Very Good-4. The highest frequency was recorded Very Good 352(50.94%) followed by Good 255(36.90%), Fair 63(9.12%), Poor 12(1.74%) and No opinion 9(1.30%) respectively.

## Conclusion

This study focuses on the Analytical study of Information Seeking Behaviour among Agricultural Scientists who are

working as Faculty members in the above listed 6 Agricultural Universities in Karnataka State. Their requirements and preferences regarding various information sources like formal, informal and sources from electronic media have been explored through questionnaire survey method. This study employed structured questionnaires which were distributed to faculty members (Professors, Associate Professors and Assistant Professors) in various teaching and research departments of the above said six universities, as selected for the study.

**Conflict of Interest:** None.

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