Information Searching Habits among Engineering Professionals in Cuddalore District

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Abstract

The present study examines searching of information resources, nature and type of information required, use of web based information resources, time spent and place of access to web based information resources, methods preferred for information seeking, opinion about ways to gather immediate need of information, use of meta search engines for accessing e-resources, information gathered about whether users obtain the relevant information while searching the web resources, search option preferred for accessing web based information resources and need for orientation/ training programs for better use of web-resources by the faculty members of Engineering Colleges in Cuddalore District. The article concludes with appropriate suggestions to improve Information Seeking and Searching Behaviour by the faculty members of engineering colleges in Cuddalore District.

Keywords

Information Use and Searching Habits; Electronic Resources; Search Strategies.

Electronic access

The journal is available at www.jalis.in
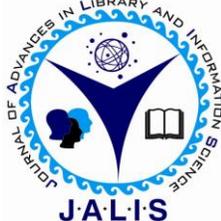
1. Introduction

Information is a product of human brain in action. It may be abstract or concrete when an individual begins and sensation flash across mind and memory to retain some piece of Knowledge. This piece of knowledge is the information. Information acts as a backbone for any dynamic and efficient research programme. It is one which adds to our awareness or understanding of some topics, problems or events it is perceived as facts, intelligence, data, news and knowledge. The quality of research depends upon information, which keeps all activities alive, active and dynamic.

Library forms an essential part of the chain of human communication. It is a bridge between those who generates information and those who required using it. Library as a social institution works for the greater enlightenment of the society and gradually creates a climate in which it can flourish. Library provides essential information for the progress of individual in every work of life. Information is a product of human brain in action. It may be abstract or concrete when an individual begins and sensation flash across mind and memory to retain some piece of Knowledge. This piece of knowledge is the information. The library and information services are rapidly changing and development in the twenty first century and digital technology has made it more easy, immediately and comfortable to affect the stored library (Kenchakkanavar, 2014).The study concerned with searching of information by the engineering professionals in Cuddalore District.

2. Review of Literature

The review of Literature is an important exercise of any research work. It is a source from where research ideas are drawn and developed into concept and finally theories.

Chudamani, et al., (2006) in their conference paper underlined the importance of preparation before service. investigators are of the view that knowledge of the ISB of scientists is essential to predict their information use and will be useful in planning and implementing an information system.Liao, et al., (2007) compared the information needs and ISB of international graduate students and American graduate students at Virginia Tech. The objective of this comparative study was to identify how graduate students having different characteristics use various information sources and also to obtain insights into

intentional graduate students ISB. Fairth et al (2014) described a study to explore Sexual and reproductive health knowledge, information-seeking behaviour and attitudes of Saudi female university students. Questionnaire survey methods adopted at 13 universities in Riyadh, Saudi Arabia. Ebenezer (2015)[183] overviewed the resent literature on nurses and midwives information behaviour, with a particular focus on sources used and barriers encountered. Practitioners within the nursing profession have a marked preference for interactive and human sources of information. They habitually associate information seeking with professional development rather than with clinical practice. Lack of time is the most frequently reported problem; also, they frequently lack confidence in searching and appraising the professional literature and in applying research in practice. Kostaglolas et al (2014)[182] have examined information seeking behaviour targeted to music information seeking by amateur musicians, accompanied with empirical evidence from a survey on a community concert band. It was employed in order to understand information motives and needs, as well as obstacles in information seeking of musicians.. It was found that musicians seek information not only for entertainment but for educational purposes as well as for the acquisition of certain music works. Al-Wrelkat et al (2015)[184] have applied grounded theory to the Information Seeking behaviour of social scientists when searching Arabic and English academic database using both languages. The semi-structured interviews followed each experiment and were analysed using the Strauss and Corbin (1990) version of the grounded theory, as were the think-aloud protocols. The study suggested that the information needs of the subjects varied depending on the language used.

3. Objectives of the study

- To identify the frequency of library visit by engineering professionals.
- To know the purpose of library visit by engineering professionals in Cuddalore Dt..
- To assess the dependency of information by the engineering professionals.

4. Methodology

The background information of the respondents include sample size, selected engineering colleges in Cuddalore District. It is confined that professionals means those aho are working and studying in Engineering Colleges in Cuddallore Ditstrict only. Details of questionnaires distributed and collected among the respondents of these institutions and demographic details of respondents. Questionnaires were distributed among the Engineering professional of 6 engineering colleges in Cuddalore. There are 1050 questionnaires distributed and responses are received 912 and its response rate is 86.86 percentages.

5. Result and Discussion

In this study an attempt to interpret and analyses the "Searching of Information by the Engineering Professionals in Engineering Colleges in Cuddalore District. The primary objectives of the study are use of library visit, purposes, dependency and the way of their information searching.

5.1 Institution wise distribution of Questionnaires

The number of questionnaire has been distributed depends on the total number of the engineering professional is each of the institutions in Cuddalore District. The table 1 shows the number of questionnaires distributed and the responses.

Table 1: Institution Wise Questionnaires Distributed

S.No.	Name of the Institute	Distributed	Response	%
1	University College of Engineering, Panruti	175	152	86.86
2	Krishnasamy College of Engineering and Technology	175	161	92.00
3	C.K. College of Engineering and Technology	175	157	89.71
4	Dr.Navalar Nedunchezhiyan College of Engineering	175	147	84.00
5	M R K Institute of Technology	175	142	81.14
6	St.Anne's College of Engineering and Technology	175	153	87.43
	Total	**1050**	**912**	86.86

It is observed from the table 1, that Krishnasamy College of Engineering and Technology response rate is 92% and C.K. College of Engineering and Technology response rate 89.71%.. The rest of the engineering colleges rate of responses was high which as University College of Engineering, Panruti is 86.86%, Dr.Navalar Nedunchezhiyan College of Engineering is 84%, M R K Institute of Technology is 81.14 and St.Anne's College of Engineering and Technology is 86.86%. The overall performance of responses is 82.90%.

5.2 Demographic Details of the Respondents

The demographic details of the engineering professional are presented with percentage analysis in table 2.

Table 2: Demographic Details of the Respondents

S.No.	Description		Frequency	Percent
1	Gender	Male	612	67.11
2		Female	300	32.89
1	Category of Institution	Government	94	10.31
2		Self-Financing	818	89.69
		Total	912	100

From the table 2, the gender of respondents, 612 (67.11%) are Male and 300 (32.89%) are female and the Category of Engineering professionals 806 (88.38%) are Student and 106 (11.62%) are faculty members. The status of institutions are classified into two categories as government institutions 94 (10.31%) and self-financing 818 (89.69%).

5.3 Frequency of Visit to the Library

The frequency of visit has been classified as every day, once in a week, more than once in a week, once in a fortnight and once in a month. The visiting to the library by the engineering professional are analysed and presented in table 3.

From the table 3, it is observed that 'Everyday' visit to the library in terms of frequency of visits tops the list with 388 (42.54%) respondents followed by 'Once in a week' 292 (32.01%) and 'more than once in a week' with 172 (18.86%) respondents

respectively. It is observed that 314 (34.34%) of the male engineering professional visit the library every day whereas female only 74 (8.11%) among them.

Table 3: Frequency of Visit to the Library

S.No.	Description	Gender		Institutions		Total
		Male	Female	G	SF	
1	Everyday	314 (34.43)	74 (8.11)	32 (3.51)	356 (39.04)	388 (42.54)
2	Once in a week	138 (15.13)	154 (16.89)	40 (4.39)	252 (27.63)	292 (32.01)
3	More than once in a week	130 (14.25)	42 (4.61)	12 (1.32)	160 (17.54)	172 (18.86)
4	Once in a Fortnight	22 (2.41)	30 (3.29)	6 (0.66)	46 (5.04)	52 (5.70)
5	Once in a Month	8 (0.88)	0 (0)	4 (0.44)	4 (0.44)	8 (0.88)

G-Government, SF- Self Finance)

Both 138 (15.13%) male respondents and 154 (16.89%) female respondents visit the library once in a week. By Category of user wise analysis, it is found that 348 (38.15%) respondents in Student grade are visiting library every day and 40 (4.39%) respondents in case of Engineering professionals. Whereas Once in a week visit to the library were preferred by 248 (27.19%) Student and 44(4.82%) Engineering professionals. The institutional wise analysis shows that 356 (39.04%) engineering professional of Self Finance Engineering College and 32 (3.51%) from Government Institutions visit the library every day. Whereas 252 (27.63%) engineering professional from Self Financing and 40 (4.39%) engineering professional from Government Institutions prefers to visit the library once in a week. The overall frequency revealed that every day visit to the library tops the list followed by the frequency once in a week and more than once in a week.

5.4 Time spent in information searching

The responses on time spent for access and searching of information from different sources were classified into four as below 2, 2 to 3, 3 to 4 and above 4 hours. The same has been presented in the following tables with different groups

Table 4: Time Spent In Information Searching

S.No.	Description	Below 2 Hrs.	2 to 3 Hrs.	3 to 4 Hrs.	Above 4 Hrs.	M	Std	R
1	Books	164 (17.98)	316 (34.65)	198 (34.65)	230 (27.41)	2.57	0.88	1
2	Accessing e-books	566 (62.06)	194 (21.27)	76 (21.27)	76 (8.33)	1.63	0.55	8
3	e-mail alerts, correspondence	416 (45.61)	318 (34.87)	340 (34.87)	38 (4.17)	1.78	0.80	7
4	Browsing e-journals	332 (36.4)	282 (30.92)	182 (30.92)	116 (12.72)	2.09	0.84	3
5	Interaction with colleagues /experts	184 (42.11)	308 (33.77)	150 (33.77)	70 (7.68)	1.9	0.95	5
6	Searching online databases	318 (34.87)	304 (33.33)	220 (33.33)	70 (7.68)	2.05	0.87	4
7	Journals/magazine	312 (34.21)	272 (29.82)	102 (29.82)	146 (16.01)	2.1	0.87	2
8	Searching for related websites	454 (49.78)	224 (24.56)	150 (24.56)	84 (9.21)	1.85	0.91	6

(Std- Standard Deviation, M-Mean, R-Rank)

From the table 4, it is observed that 'Books', 'Journals/magazine' and 'browsing e-journals' are the top sources of information for which more time was spent by the Engineering professionals. Books, 164 (17.98%), journals 312 (34.21%) and Browsing e-journals, 332 (36.40%) the respondents spent more than 4 hours respectively. Searching for related websites, Browsing e-mail alerts, correspondence, accessing e-books are revealing lower priority among them. The mean value of all the variables ranges between 1.91 and 2.57. It can be inferred that all the five variables lies between below2 hours and 3 hours. The deviation of opinion ranges between 0.55 and 0.95, which indicates that there is no significance of the time spent in information searching. Based on the responses, mean value were calculated and ranked the variables. Out of ten information searching variables, engineering professional gave first rank to the 'Books' as source of dependence with mean value of 1.63. This is followed by Journals/magazine with mean value of 1.78.

The time spent on information searching by the respondents has been analysed based on gender wise. The same has been presented in table 5.

Table 5: Time Spent In Information Searching Vs Gender

S.No.	Description	Male			Female			Chi-Square
		M	Std	R	M	Std	R	
1	Books	2.52	1.06	1	2.70	1.10	1	12.16
2	Accessing e-books	1.57	0.90	8	1.75	1.04	8	4.65
3	e-mail alerts, correspondence	1.78	0.90	7	1.79	0.76	7	10.95
4	Browsing e-journals	2.12	1.07	3	2.02	0.94	4	6.81
5	Interaction with colleagues /experts	1.89	0.91	5	1.92	1.00	5	3.68
6	Searching online databases	2.02	0.96	4	2.11	0.93	3	5.58
7	Journals/magazine	2.15	1.08	2	2.24	1.05	2	2.92
8	Searching for related websites	1.83	1.02	6	1.89	0.98	6	40.75

(M–Mean, Std–Standard Deviation, R–Rank, Degrees of Freedom = 3, Table Value=7.815)

From the table 5, it is observed that according to the male faculty more time spent on information searching from Books (2.52), journals magazines (1.57) and browsing e-journals (2.12) are ranked 1, 2 and 3 respectively. As far as the Female faculty were concerned more time has been spent on information searching to books (2.70), journals/magazine (2.24), searching online databases (2.11) and its ranks are 1, 2 and 3 respectively. Time spent on information searching by searching for related websites, e-mail alerts, correspondence and accessing e-books were the least preferred ones by the male engineering professional and female engineering professional least preferences are searching for related websites, e-mail alerts, correspondence and Accessing e-books. The mean value of all the variables ranges between 1.57 and 2.50.The standard deviation ranged between 0.87 and 1.08 which indicate variables are no significant by ascertained on the opinion on male. The mean value of all the variables ranges between 1.63 and 2.70.The standard deviation ranged between 0.76 and 1.10 which indicate variables have no significant association on the opinion on female. Based on the responses, the calculated value of Books, Interaction with colleagues / experts, e-mail alerts, correspondence, Photocopying are higher than the table value 7.815. It shows that variable vary significant in the opinion of male and female faculty on the dependency of time spent in information searching. The remaining variables are less than the table value and insignificant

The time spent on information searching by the respondents has been analysed based on the type of institutions and the same has been presented in Table 6.

Table 6: Time Spent In Information Searching Vs Institution

S.No.	Description	Government			Self-financing			Chi Square
		M	Std	R	M	Std	R	
1	Books	2.36	1.07	1	2.60	1.07	1	2.33
2	Accessing e-books	1.83	1.09	6	1.61	0.93	8	2.97
3	e-mail alerts, correspondence	1.70	0.88	7	1.79	0.85	7	1.45
4	Browsing e-journals	2.00	0.93	2	2.10	1.04	3	2.13
5	Interaction with colleagues /experts	1.96	0.86	3	1.89	0.95	5	3.04
6	Searching online databases	1.94	0.96	5	2.06	0.95	4	1.62
7	Journals/magazine	1.96	0.95	3	2.20	1.08	2	8.85
8	Searching for related websites	1.64	1.01	8	1.88	1.00	6	6.05

(M–Mean, Std–Standard Deviation, R–Rank, Degrees of Freedom=3, Table Value=7.815)

From the table, it is observed that professionals from the Government Institute spent more time Books (2.36), searching online databases (2.00) and browsing e-journals (1.96) are ranked 1, 2 and 3 respectively. Faculty from Self- Financing Institute have given their preferences to books (2.60), searching for related websites (2.20) and Searching online databases (2.10) and its ranks are 1, 2 and 3 respectively. Journals / magazine, interaction with colleagues / experts and e-mail alerts, correspondence are the least preferred ones by the Government Institute faculty but Self Financing Institute faculty given their least preference to e-mail alerts, correspondence, Interaction with colleagues / experts and Journals / magazine.The mean value of all the variables ranges between 1.64 and 2.36. The standard deviation ranged between 0.86 and 1.09 which indicate variables are no significant on the opinion on Government Institute. The mean value of all the variables ranges between 1.61 and 2.60. The standard deviation ranged between 0.85 and 1.08 which indicate variables are no significant on the opinion on Self- Financing Institute.

Based on the responses, the calculated value of searching for related websites value is higher than the table value 7.815. It shows that variable vary significant in the opinion of Government institutions and Self-financing institutions on time spent in information searching. The remaining variables are less than the table value and insignificant.

5.5 Purpose of visiting to the library

The purposes of visiting to the library by the engineering professionals were asked to mark their preference in a five point scale on eleven variables and the same has been presented in table 7.

Table 7: Purpose of Visiting the Library

S.No.	Description	MP	P	SP	LEP	LTP	M	Std	R
1	Borrowing Books	668 (73.25)	206 (22.59)	18 (1.97)	16 (1.75)	4 (0.44)	1.34	0.65	1
2	Reading Journals / articles	350 (38.38)	468 (51.32)	86 (9.43)	8 (0.88)	0 (0)	1.73	0.66	3
3	Referring reference sources	204 (22.37)	480 (52.63)	180 (19.74)	36 (3.95)	12 (1.32)	2.09	0.83	5
4	Reading News Paper	402 (44.08)	420 (46.05)	86 (9.43)	4 (0.44)	0 (0)	1.66	0.66	2
5	Improve Personal Competencies	188 (20.61)	420 (46.05)	220 (24.12)	68 (7.46)	16 (1.75)	2.24	0.92	7
6	Accessing online resources	228 (25)	460 (50.44)	198 (21.71)	20 (2.19)	6 (0.66)	2.03	0.78	4
7	Accessing volumes back	204 (22.37)	470 (51.54)	194 (21.27)	30 (3.29)	14 (1.54)	2.10	0.83	6
8	Lecture/seminar Preparation	218 (23.9)	278 (30.48)	244 (26.75)	128 (14.04)	44 (4.82)	2.45	1.14	8
9	Conversing with Co - workers and other Experts in the Institutions	132 (14.47)	326 (35.75)	272 (29.82)	158 (17.32)	24 (2.63)	2.58	1.02	9

(MP-Most Preferred; P–Preferred; SP-Somewhat Preferred; LEP-Less Preferred; LTP-Least Preferred, M–Mean, Std–Standard Deviation, R–Rank)

From the above table 7, it is observed that the respondent major reasons for visiting the library are Borrowing Books 668 (73.25%), Reading News Paper 402 (44.08%) and Reading Journals / articles 350 (38.38%). Improve Personal Competencies, Lecture Preparation, and Conversing with Co-workers and other Experts in the Institutions are the lower priority among them. The mean value of all the variables ranged between 1.34 and 2.24, except for the variables Publisher Catalogues and Flyers. Out of the nine purpose of visits to the libraries, the engineering professional credited top rank to the 'Borrowing Books' as source of dependence with mean value of 1.34 and it is followed by Reading News Paper with mean value of 1.66 and Improve Personal Competencies (1.73).

The purpose of visit to the library by the engineering professional based on the gender, the mean value, standard deviation, rank and their chi-square value has been presented in table 8.

Table 8: Purpose of Visiting the Library Vs Gender

S.No.	Description	Male			Female			Chi-Square
		M	Std	R	M	Std	R	
1	Borrowing Books	1.41	0.67	1	1.19	0.59	1	25.96
2	Reading Journals / articles	1.71	0.60	3	1.77	0.78	3	15.54
3	Referring reference sources	2.09	0.89	5	2.10	0.70	6	21.27
4	Reading News Paper	1.65	0.65	2	1.69	0.69	2	3.82
5	Improve Personal Competencies	2.31	0.97	7	2.09	0.79	5	8.48
6	Accessing online resources	2.05	0.80	4	1.99	0.76	4	2.25
7	Accessing back volumes	2.09	0.84	6	2.12	0.83	7	11.27
8	Lecture/seminar Preparation	2.47	1.14	8	2.42	1.14	8	1.18
9	Conversing with Co -workers and other Experts in the Institutions	2.61	1.06	9	2.52	0.92	9	13.30

(M–Mean, Std–Standard Deviation, R–Rank, Degrees of Freedom=4, Table Value=9.488)

From the table 8, it is observed that the mean value of top priorities of purpose of visit to the library by the male engineering professional are Borrowing Books (1.41), Reading News Paper (1.65) and Reading Journals / articles (1.71) and are ranked 1, 2 and 3 respectively. Similarly, the mean value of Female engineering professional top priorities, which is also the same as that of the their male counterparts is for Borrowing Books (1.19), Reading News Paper (1.69) Reading Journals / articles (1.77) and are ranked 1, 2 and 3 respectively. Accessing back volumes, Lecture Preparation., Conversing with Co -workers and other Experts in the Institutions are the least preference by the male engineering professionals, however the female engineering professional least preferences for the purpose of visit to the library differs are as follows, Improve Personal Competencies, Lecture Preparation and Conversing with Co -workers and other Experts in the Institutions. Based on the responses, the calculated value of Borrowing Books, Reading Journals / articles are. Referring reference services, Referring reference sources Accessing back volumes and Conversing with Co -workers and other Experts in the Institutions are higher than the table value of 9.488. It shows that these variables vary significantly in the opinion of male and female faculty on the Purpose of visit to the library. The remaining variables are less than the table value and are insignificant.

The purpose of visit to the library by the engineering professional based on the type of institution, the mean value, standard deviation, rank and their chi-square value has been presented in table 9.

Table 9: Purpose Of Visiting The Library Vs Institution

S.No.	Description	Government			Self-financing			Chi-Square
		M	Std	R	M	Std	R	
1	Borrowing Books	1.13	0.34	1	1.36	0.67	1	5.82
2	Reading Journals / articles	1.62	0.57	3	1.74	0.67	3	2.22
3	Referring reference sources	2.17	0.79	7	2.08	0.84	5	2.28
4	Reading News Paper	1.47	0.50	2	1.68	0.68	2	6.16
5	Improve Personal Competencies	2.06	0.73	6	2.26	0.94	7	4.87
6	Accessing online resources	1.72	0.68	5	2.07	0.79	4	8.55
7	Accessing back volumes	1.70	0.55	4	2.15	0.85	6	13.90
8	Lecture Preparation	2.43	0.83	8	2.46	1.17	8	10.70
9	Conversing with Co -workers and other Experts in the Institutions	2.57	0.90	9	2.58	1.03	9	3.85

(M–Mean, Std–Standard Deviation, R – Rank, Degrees of Freedom=4, Table Value= 9.488)

From the table, it is observed that the Government Institute faculty visiting the library for Borrowing Books (1.13), Reading News Paper (1.47) and Reading Journals / articles (1.62) are ranked 1, 2 and 3 respectively. Self- Financing Institute faculty have given preference to Borrowing Books (1.36), Reading News Paper (1.68) and Reading Journals / articles (1.74) and its ranks are 1, 2 and 3 respectively. Referring reference sources, Lecture Preparation and Conversing with Co -workers and other Experts in the Institutions are least preference by the Government Institute faculty but Self Financing Institute faculty lest preference given to Improve Personal Competencies, Lecture Preparation and Conversing with Co -workers and other Experts in the Institutions. Based on the responses, the mean value of all the variables ranges between 1.13 and 0.90.The standard deviation ranged between 0.34 and 1.07 which indicate variables are no significant on the opinion on Government Institute. The mean value of all the variables ranges between 1.36 and 2.58.The standard deviation ranged between 0.67 and 1.17 which indicate variables are no significant on the opinion on Self- Financing InstituteThe calculated values of Accessing back volumes, Lecture Preparation, are higher than the table value 9.488. It shows that variable vary significant in the opinion of Government Institution and Self-financing Institution on the dependency of Purpose of visit. The remaining

variables are less than the table value an Institution d insignificant.

5.6 Dependency of information sources

The dependence of 15 different information resources by the users was ascertained in a five point scale such as highly, frequently, occasionally, rarely and never. The mean and standard deviation were calculated based on the responses. The ranks were assigned based on mean and standard deviation. The responses, mean, standard deviation and rank were shown in Table 10.

Table 10: Dependency of Information Sources

S.No.	Description	Hig.	Freq.	Occ.	Rar.	Never	M	Std	R
1	Books	678 (74.34)	192 (21.05)	42 (4.61)	0 (0)	0 (0)	1.30	0.55	1
2	Journals	74 (8.11)	322 (35.31)	318 (34.87)	174 (19.08)	24 (2.63)	2.73	0.95	7
3	Conference Proceedings	72 (7.89)	214 (23.46)	372 (40.79)	168 (18.42)	86 (9.43)	2.98	1.05	11
4	Magazines	28 (3.07)	242 (26.54)	384 (42.11)	210 (23.03)	48 (5.26)	3.01	0.91	12
5	Audio / Visuals (CDs, DVD)	106 (11.62)	303 (33.55)	244 (26.75)	174 (19.08)	82 (8.99)	2.80	1.15	9
6	Internet Sources	430 (47.15)	296 (32.46)	114 (12.5)	36 (3.95)	36 (3.95)	1.85	1.04	2
7	Conversion with Peers	102 (11.18)	376 (41.23)	266 (29.17)	128 (14.04)	40 (4.39)	2.59	1.00	6
8	Newspaper	162 (17.76)	362 (39.69)	218 (23.9)	128 (14.04)	42 (4.61)	2.48	1.08	4
9	Technical reports	74 (8.11)	288 (31.58)	300 (32.89)	184 (20.18)	66 (7.24)	2.87	1.06	10
10	Reference materials	138 (19.52)	450 (49.34)	166 (18.2)	86 (9.43)	32 (3.51)	2.28	1.00	3
11	Symposium / Conference	106 (11.62)	260 (28.51)	338 (37.06)	160 (17.54)	48 (5.26)	2.76	1.04	8
12	Seminar / Lecture	134 (14.69)	288 (31.58)	360 (39.47)	78 (8.55)	52 (5.7)	2.59	1.02	5

(Hig. – Highly, Freq. = Frequently; Occ. = Occasionally; Rar. – Rarely, M- Mean, Std- Standard Deviation, R- Rank)

From table 10, it is observed that the users' dependency of information resources. Books with 678 (74.34%), Internet with 430 (47.15%) and Reference Materials with 178 (19.52%) are highly depended sources by the engineering professional and ranked as 1, 2 and 3 respectively. 'The mean value of all the variables ranges between 1.30 and 301 except for variables 'Magazines'. It is inferred that all the 12 variables lie between higher and frequently. The deviation of opinion ranged between 0.55 and 1.22 which indicates there is no significant of the respondent's opinion in dependency of information sources. Based on the responses, mean were calculated and ranked. Out of twelve information sources, engineering professionals gave first three ranks to the 'Books' as source of dependency with mean value of 1.30. This is followed by internet sources with mean value of 1.85 and Reference Materials.

The dependency of sources has been analysed based on the opinion of male and female engineering professionals. The same has been presented with the value of mean, standard deviation, ranking and chi-square in table 11.

Table 11: Dependency of Information Sources Vs Gender

S.No.	Description	Male			Female			Chi-Square
		M	Std	R	M	Std	R	
1	Books	1.38	0.60	1	1.15	0.40	1	16.75
2	Journals	2.73	0.99	7	2.73	0.87	9	8.18
3	Conference Proceedings	2.96	2.96	11	3.01	0.98	11	13.55
4	Magazines	2.97	0.92	12	3.08	0.89	12	11.97
5	Audio / Visuals (CDs, DVD)	2.84	1.16	8	2.73	1.12	10	4.58
6	Internet Sources	1.92	1.09	2	1.71	0.93	2	14.22
7	Conversion with Peers	2.58	0.99	6	2.63	1.03	7	8.28
8	Newspaper	2.49	1.03	4	2.47	1.18	5	22.51
9	Technical reports	2.94	2.94	10	2.72	1.00	8	12.65
10	Reference materials	2.35	2.35	3	2.14	1.04	3	12.47
11	Symposium / Conference	2.84	1.06	9	2.61	1.02	6	7.48
12	Seminar / Lecture	2.73	1.07	5	2.31	0.88	4	19.62

(M–Mean, Std–Standard Deviation, R–Rank, Degrees of Freedom = 4, Table Value=9.488)

From the table, it is observed that the preferences of faculty are Books (1.38), Internet Sources (1.92) and Reference Materials (2.35). Female have given their top preferences to Books (1.15), Internet Sources (1.71) and Reference Materials (2.14). 'Magazines', is the least preferred ones by the male engineering professional and according to the female engineering professional and students least preferred information resources is 'Magazines', '. The mean value of all the variables ranges between 1.38 and 2.97, except 3.15 and the standard deviation ranged between 0.60 and 1.16 which indicate, variables are not significant on the opinion by the male. The mean value of all the variables ranges between 1.15 and 2.95, expect 3.01, 3.08 and 3.17 and the standard deviation ranged between 0.40 and 1.18 which indicate, variables are no significant on the opinion by the female.

Based on the responses, the calculated value of 'Books', 'Magazines', 'News paper', 'Conference proceedings', 'Technical Reports', 'Reference Materials', 'Internet Sources' and 'Seminars / Lectures' are higher than the table value 9.488. It shows that variable vary significant in the opinion of male and female faculty on the dependency of information sources. The remaining variables are less than the table value and insignificant.

Dependency on information sources has been analysed with the nature of institutions i.e. Government and Self Financing. The values for opinions of the respondents are presented in table 12.

Table 12: Dependency of Information Sources Vs Institution

S.No.	Description	Government			Self-financing			Chi-Square
		M	Std	R	M	Std	R	
1	Books	1.17	0.38	1	1.32	0.57	1	3.34
2	Journals	2.19	1.04	4	2.79	0.92	7	48.99
3	Conference Proceedings	2.77	0.89	11	3.01	1.07	11	6.42
4	Magazines	2.81	0.95	12	3.03	0.91	12	4.22
5	Audio / Visuals (CDs, DVD)	2.75	0.94	9	2.81	1.17	9	5.66
6	Internet Sources	1.62	0.74	2	1.88	1.07	2	4.79
7	Conversion with Peers	2.57	0.90	7	2.59	1.02	5	9.83
8	Newspaper	2.75	1.03	10	2.45	1.08	4	4.93
9	Technical reports	2.57	0.88	8	2.90	1.07	10	6.07
10	Reference materials	2.02	0.71	3	2.31	1.02	3	8.76
11	Symposium / Conference	2.38	0.99	5	2.80	1.04	8	8.92
12	Seminar / Lecture	2.38	0.68	6	2.61	1.06	6	10.54

(M–Mean, Std–Standard Deviation, R–Rank, Degrees of Freedom=4, Table Value=9.488)

From the table, it is observed that among the respondents from Government Institute opinion on information sources dependency are Books (1.17), Internet Sources (1.62) and Reference Materials (2.02) and their rankings are 1, 2 and 3 respectively. Faculty from Self- Financing Institute have given their preferences to Books (1.32), Internet Sources (1.88) and Reference Materials (2.31) and ranked 1, 2 and 3 respectively among the information sources. Conference Proceedings, and Magazines are the least preferred ones as per the opinion given by the Government Institute faculty but Self Financing Institute faculty least preference are Communication with peers using media, Indexing & abstracting and Thesis / dissertations. The mean value of all the variables ranges between 1.17 and 2.81. The standard deviation ranged between 0.38 and 1.05 which indicate variables are no significant on the opinion on Government Institute. The mean value of all the variables ranges between 1.32 and 2.99, except 3.01, 3.03, 3.12, 3.16, and 3.20 the standard deviation ranged between 0.57 and 1.24 which indicate variables are no significant on the opinion on Self-Financing Institute.

The calculated value of Journals, Thesis / dissertations, Conference proceedings, Reference materials, Audio / Visuals (CDs, DVD), Conversation with peers, Symposium / Conference, Seminar / Lecture, Communication with peers using media are higher than the table value 9.488. It shows that variable vary significant in the opinion of faculty from government institute and self-financing institute on the dependency of information sources. The remaining variables are less than the tale value and insignificant.

Conclusion

The study of searching of information can stand on its own as an area of 'information searching activities' or information seeking patterns distance the notion from that of behaviorism and also link the notion philosophically closer to its true, family or concepts connected with reasons and actions stimulus and response group. Information being generated in engineering colleges in Cuddalore District as result of research and development activities has created problems for users to locate and retrieve the required, information in time. Moreover, user expectations are rising constantly, creating demand for more sophisticated, high quality and prompt information services. So that information centers or libraries are need to be planned and designed on the basis of needs and requirements or their user.

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