Awareness on Electronic Information Resources by the Users of Engineering College Libraries of Chittoor District

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Abstract: *The present study deals with the awareness on electronic information resources by the students and faculty members of the engineering college libraries in Chittoor District, Andhra Pradesh. The study found that majority of respondents (39.6%) is visiting the library daily. The study revealed that (79.0%) of the respondents are visiting the library for borrowing and returning of books. The studies also found that majority of the respondents (92.4%) spend less than 2 hours in the library. It also found that majority of the respondents (78.9%) opined that they fully aware of electronic information resources. This study found that 71.2% majority of the respondents stated that they use electronic information resources for keeping the information up-to-date in the subject area. It reveals that majority of the respondents (85%) agreed that 'Easy to Access the information' is the main benefit of accessing electronic information resources.*

Keywords: *Electronic Information Resources; respondents; students; faculty members Engineering College Libraries.*

I. INTRODUCTION

The spirit of any research or academic institution is Libraries. The libraries form the most significant forum of education, particularly in the field of engineering/technology education. Due to the rapid growth in various fields of science and technology, it becomes essential for the libraries to remain up-dated and become accessible to its pursuers.

The engineering college libraries are to be entitled with the competent personnel of library and equipped with carefully chosen reading materials, printed books and electronic information resources and audio-visual aids for teaching and research. The engineers should be informed of the modern developments in the engineering services, and the library is the prime mover of the engineering college.

II. REVIEW OF LITERATURE

There following are the related studies discuss the some of these issues and is conducted in the light of the earlier studies.

Rajeshwar Kumar, G. (2016) in his article entitled Awareness and *Use of Digital Library Resources by Faculty Members of Engineering College Libraries in Warangal District, Telangana: A Study*, opined that the 92.42% of the faculty members know the use of the digital resources. 86.36% of the faculty members use digital resources for collecting the subject information and 52.12% of faculty members use digital sources for their teaching and research work. The Majority (82.42%) of the faculty members are using electronic journals for their academic work.

Priyadarshini, Jankiraman and Subramaniam (2015) conducted a survey entitled *Awareness in usage of E-resources among users at Agricultural College and Research Institute, Madurai: A Study*. The findings revealed that the most of users are well known of the use of available e-resources effectively subscribed by the library. The study revealed that 80.6% of Post-graduate students and 93.3% of the faculty members are using freely available e-resources through internet by using search engines and 70% of the Ph.D. scholars prefer to use the e-journals. The study also found that digital resources available through e-books, CeRA, Springer link, , Wiley and Black, CABI, resources subscribed by the library are widely used by the respondents.

Objectives
1. To know the gender-wise distribution of respondents
2. To know the frequency of visiting the library;
3. To know the time spent in the library;
4. To know the purpose of visiting the library;
5. To know the awareness on the electronic information resources;
6. To know the purpose of accessing electronic information resources by the users;
7. To know the benefits with electronic Information Resources by the users; and
8. To examine the difficulties while accessing electronic Information Resources by the users.

III. METHODOLOGY

For the study, the simple random sampling technique was used for collecting the data through questionnaires from the respondents of the selected Engineering College libraries of Chittoor District, Andhra Pradesh. A total of 1900 nos. of questionnaires have been distributed and 1216 filled-in valid questionnaires have been received. The response rate is 64%.

IV. DATA ANALYSIS

The collected data has been interpreted and the results were discussed hereunder.

1. Gender-wise distribution of Respondents: The table shows the data regarding the gender-wise distribution of respondents. The details are clearly presented in Table 1.

Table 1 shows that Gender-wise distribution of respondents. It is also observed that majority of male respondents is (68.9%) and remaining number of female respondents is (31.1%). It is understood that male respondents lead the female respondents in all engineering colleges. It is evident from the table that a majority of male respondents of faculty members (66.3%), PG students (67.3%) and UG students (70.5%), followed by female respondents 33.7%, 32.7% and 29.5% respectively. It is understood that a majority of the respondents are males.

Table No. 1: Gender-wise Distribution of Respondents

Gender	Nature of Respondents			Total (N=1216)
	Faculty Members (n=196)	PG Students (n=336)	UG Students (n=684)	
Male	130 (66.3)	226 (67.3)	482 (70.5)	838 (68.9)
Female	66 (33.7)	110 (32.7)	202 (29.5)	378 (31.1)
Total	**196 (100)**	**336 (100)**	**684 (100)**	**1216 (100)**

Note: Numbers in parentheses denote percentages

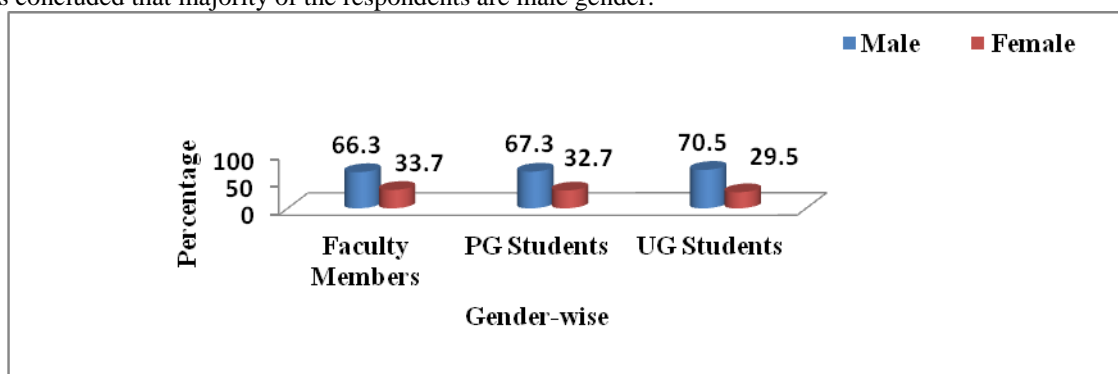It is concluded that majority of the respondents are male gender.

Figure 1: Gender-wise Distribution of Respondents

2. Frequency of visiting the Library: The distribution of respondents regarding frequency of visiting the library is presented in Table No.2.

Table No. 2: Distribution of Respondents regarding Frequency of visiting the Library

Frequency	Nature of Respondents			Grand Total (N=1216)
	Faculty Members (n=196)	PG Students (n=336)	UG Students (n=684)	
Daily	62 (31.6)	110 (32.7)	309 (45.2)	481 (39.6)
Twice in a week	47 (24.0)	79 (23.5)	255 (37.3)	381 (31.3)
Once in a week	51 (26.0)	74 (22.1)	86 (12.6)	211 (17.4)
Occasionally	36 (18.4)	73 (21.7)	34 (4.9)	143 (11.7)
Total	**196 (100)**	**336 (100)**	**684 (100)**	**1216 (100)**

Note: Numbers in parentheses denote percentages

Between Variables	Chi-square Value	Degrees of Freedom	Table value	Level of Significance
Faculty-PG students	1.581	3	7.815	Not significant at 0.05 level
Faculty – UG students	66.549	3	7.815	Significant at 0.05 level
PG Students – UG students	94.660	3	7.815	Significant at 0.05 level

Table 2 reveals that majority of respondents (39.6%) are visiting the library daily, followed by 31.3% twice in a week, 17.4% of the respondents visiting the library once in a week and 11.7% visit the library occasionally.

From the Chi-square output table, it shows that there is no significant difference between Faculty Members and PG students with regard to the frequency of visit to the library with 0.05 levels at 3 degrees of freedom.

It is evident from the table that there is significant difference between the faculty members and the UG students with regard to the frequency of visit to the library by the respondents as indicated by Chi-square value, which is significant level of 0.05 has been achieved for all aspects with 3 degrees of freedom. This means that Chi-square table is showing systematic association between the above two variables at 99% level of confidence. It is also evident that there is significant difference between PG students and UG students with regard to the frequency of visit to the library as indicated by Chi-square value which is significant at 0.05 levels with 3 degrees of freedom.

It is concluded that a majority of the UG students (45.2%), followed by PG students 32.7% are visiting the library daily.
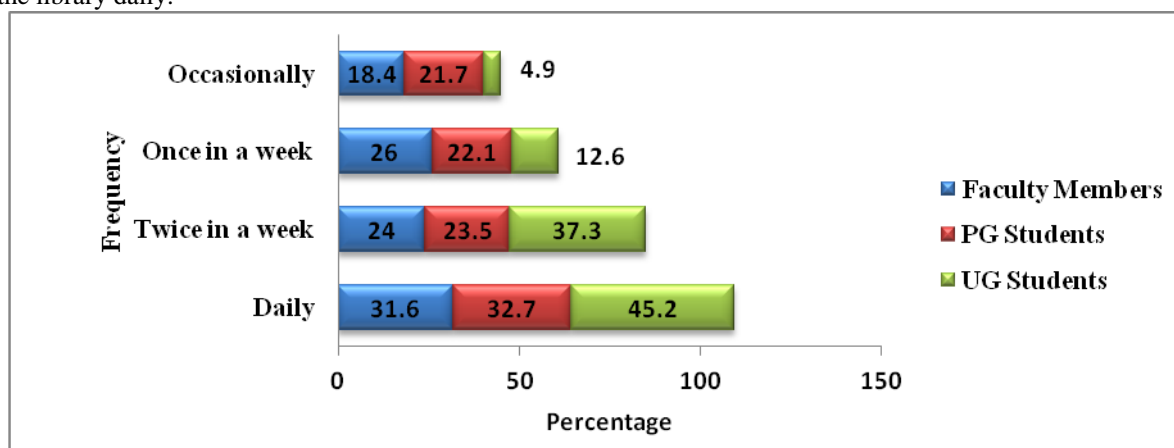

Figure 2: Distribution of Respondents regarding Frequency of visiting the Library

3. Purpose of visiting the Library by the Respondents: The distribution of respondents to know the purpose of visiting the library are presented in Table 3.

Table No. 3: Distribution of Respondents regarding Purpose of visiting the Library

Purpose of visiting the Library	Nature of Respondents			Total (N=1216)
	Faculty Members (n=196)	PG Students (n=336)	UG Students (n=684)	
For borrowing and returning of books	139 (70.9)	253 (75.3)	569 (83.2)	961 (79.0)
Reading/Writing the Books/ Articles/ Dissertations	126 (64.3)	214 (63.7)	469 (68.2)	809 (66.5)
For reading newspaper	0 (0.0)	191 (56.8)	603 (88.2)	794 (65.3)
Consulting Reference Materials	141 (71.9)	221 (65.8)	311 (55.8)	673 (55.3)
For consulting print periodicals/non-print periodicals	68 (34.7)	97 (28.9)	109 (15.9)	274 (22.5)
Confidential material preparation/ getting information about career opportunities	99 (50.5)	62 (18.5)	75 (11.0)	236 (19.4)
Using competitive examination	29	132	344	505

books for confidential assignments/preparation	(14.8)	(39.3)	(50.3)	(41.5)
Searching online journals/databases	153 (78.1)	127 (37.8)	194 (28.4)	474 (39.0)
For watching Video Lectures (NPTEL)/using audio-visual materials (CDs/DVDs)	18 (9.2)	35 (10.4)	32 (4.7)	85 (7.0)
For using Internet (e-mails, WWW etc.	0 (0.0)	205 (98.5)	509 (74.4)	714 (58.7)
For project reports (UG level)	0 (0.0)	78 (23.2)	92 (13.5)	170 (14.0)
For taking printouts	64 (32.7)	112 (33.3)	407 (59.5)	583 (47.9)
For using dissertations/theses/ reports	12 (6.1)	42 (12.5)	63 (9.2)	117 (9.6)
For photocopying (Xerox)	62 (31.6)	169 (50.3)	295 (43.1)	526 (43.3)

Note: Numbers in parentheses denote percentages (Respondents were permitted to give multiple answers)

Table 3 shows that a majority of the respondents (79.0%) are visiting the library borrowing and returning of books, followed by 66.5% are for Reading/Writing the Books/ Articles/ Dissertations, 65.3% prefers to visit the library for reading newspaper, 55.7% for using Internet (e-mails, WWW etc. 55.3% for Consulting Reference Materials, 47.9% for taking printouts, 43.3% for photocopying (Xerox), 41.5% for using competitive examination books for confidential assignments/preparation, 39% for Searching online journals/databases, 22.5% for consulting print periodicals/non-print periodicals, 19.4% for Confidential material preparation/ getting information about career opportunities, 14% for project reports (UG level), 9.6% for using dissertations/theses/ reports and 7% for watching Video Lectures (NPTEL)/using audio-visual materials (CDs/DVDs).

It is concluded that the high percentage (79.0%) of the respondents are visiting the library for borrowing and returning of books.

4. Time Spent by the Respondents in the Library: The distribution of respondents to know the time spent by them per day in the library are presented in Table 4.

Table No. 4: Distribution of Respondents regarding Time Spent in the Library

Time Spent	Nature of Respondents			Grand Total (N=1216)
	Faculty Members (n=196)	PG Students (n=336)	UG Students (n=684)	
Less than 2 hours	178 (90.8)	315 (93.8)	631 (92.3)	1124 (92.4)
2 to 4 hours	9 (4.6)	11 (3.3)	27 (3.9)	47 (3.9)
4 to 5 hours	5 (2.6)	6 (1.8)	14 (2.0)	25 (2.1)
More than 5 hours	4 (2.0)	4 (1.2)	12 (1.8)	20 (1.6)
Total	196 (100)	336 (100)	684 (100)	1216 (100)

Note: Numbers in parentheses denote percentages.

Between Variables	Chi-square Value	Degrees of Freedom	Table value	Level of Significance
Faculty-PG students	1.633	3	7.815	Not significant at 0.05 level
Faculty – UG students	0.437	3	7.815	Not significant at 0.05 level
PG Students – UG students	0.864	3	7.815	Not significant at 0.05 level

Table No. 4 explains that majority of the respondents (92.4%) spend less than 2 hours in the library, followed by 3.9% spend 2 to 4 hours, 2.1% spend 4 to 5 hours and the remaining 1.6% of respondents spend more than 5 hours in the Library.

From the Chi-square output table, it is found that significance level has not been achieved, which indicates that Chi-square table is not showing systematic association between the above two variables even at

95% level of confidence. It concludes that there is no significant difference between the faculty members and the PG students, as well as faculty members and UG students and PG students and UG students.

It is concluded that a large majority of the PG students (93.8%) spent less than 2 hours daily.

5. *Awareness on Electronic Information Resources (EIRs):* The distribution of respondents to know the awareness on electronic information resources is presented in Table 5.

Table No. 5: Distribution of Respondents regarding awareness on Electronic Information Resources (EIRs)

Awareness on EIRs	Nature of Respondents			Grand Total (N=1216)
	Faculty Members (n=196)	PG Students (n=336)	UG Students (n=684)	
Fully awareness	171 (87.2)	304 (90.5)	484 (70.8)	959 (78.9)
Moderate awareness	19 (9.7)	24 (7.1)	165 (24.1)	208 (17.1)
Less awareness	6 (3.1)	8 (2.4)	35 (5.1)	49 (4.0)
Total	**196 (100)**	**336 (100)**	**684 (100)**	**1216 (100)**

Note: Numbers in parentheses denote percentages.

Between Variables	Chi-square Value	Degrees of freedom	Table value	Level of Significance
Faculty-PG students	1.359	2	5.992	Not Significant at 0.05 level
Faculty – UG students	22.113	2	5.992	Significant at 0.05 level
PG Students – UG students	50.398	2	5.992	Significant at 0.05 level

Table 5 implies that majority of the respondents (78.9%) opined that they fully aware of electronic information resources, followed by 17.1% of them informed that they have moderate awareness and remaining 4.0% of the respondents opined that they have less awareness about electronic information resources.

It is evident from the table that there is no significant difference between faculty members and PG students with regard to the awareness on electronic information resources as indicated by Chi-square value also which is not significant level of 0.05 has been achieved in all aspects with 2 degrees of freedom. This means that Chi-square table is not showing systematic association between the above two variables at 95% level of confidence.

It is also evident that there is significant difference between the faculty members and the UG students with regard to the awareness on electronic information resources as indicated by Chi-square value also, which is significant at 0.05 levels with 2 degrees of freedom.

It is also noticed that there is significant difference between the PG students and the UG students with regard to the awareness on electronic information resources as indicated by Chi-square value also which is significant at 0.05 levels with 2 degrees of freedom.

Hence, it is concluded that there is significant difference between the faculty members and the UG students as well as between the PG and the UG students with regard to the awareness on electronic information resources (EIRs).
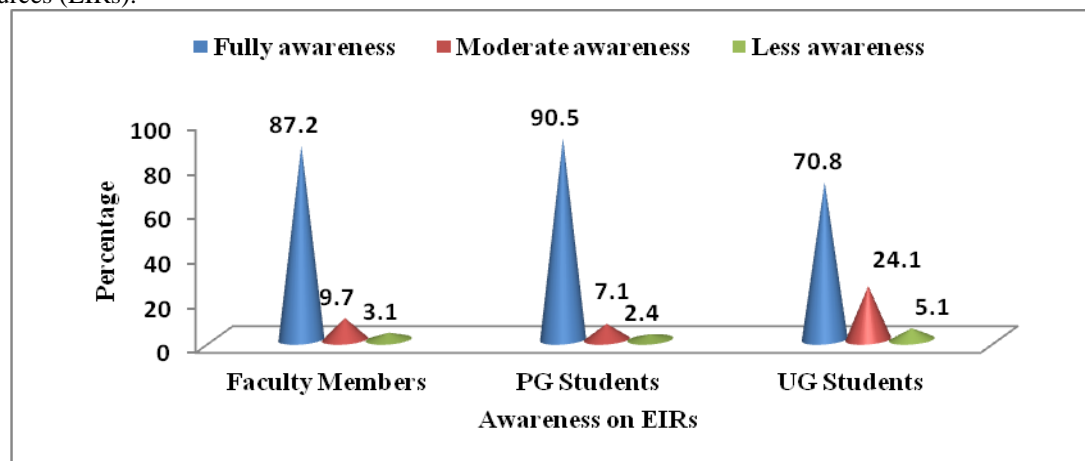

Figure 3 : Distribution of Respondents regarding awareness on Electronic Information Resources (EIRs)

6. *Purpose of browsing the electronic information resources:* The distribution of respondents according to their purpose of browsing the electronic information resources is shown in Table No.6.

Table 6 indicates that 71.2% majority of the respondents stated that they use electronic information resources for keeping the information up-to-date in the subject area, followed by 62.4% for writing assignments/ preparing lectures notes, 49.7% for research/project work, 44.2% for publishing books/seminar articles and 39.4% for finding relevant information in the area of specialization.

Table No. 6: Distribution of Respondents according to the Purpose of accessing Electronic Information Resources

Purpose of accessing Electronic Information Resources	Nature of Respondents			
	Faculty Members (n=196)	PG Students (n=336)	UG Students (n=684)	Total (N=1216)
For finding relevant information in the area of specialization	110 (56.1)	140 (41.7)	229 (33.5)	479 (39.4)
For writing assignments/ preparing lectures Notes	112 (57.1)	294 (87.5)	353 (51.6)	759 (62.4)
For research/project work	78 (39.8)	198 (58.9)	328 (48.0)	604 (49.7)
For publishing books/seminar articles	151 (77.0)	210 (62.5)	177 (25.9)	538 (44.2)
For keeping the information up-to-date in the subject area	129 (65.8)	227 (67.6)	510 (74.6)	866 (71.2)

Note: Numbers in parentheses denote percentages (Respondents were permitted to give multiple answers)

It is concluded that high percentage of respondents (71.2%) stated that they use electronic information resources for keeping the information up-to-date in the subject area.

7. *Benefits with Electronic Information Resources*: The distribution of respondents according to the Benefits with Electronic Information Resources is shown in Table No.7.

Table No. 7: Distribution of Respondents regarding benefits with Electronic Information Resources

Benefits of Electronic Information Resources	Nature of Respondents			Total (N=1216)
	Faculty Members (n=196)	PG Students (n=336)	UG Students (n=684)	
Easy to Search	126 (64.3)	270 (80.4)	420 (61.4)	816 (67.1)
Easy to Download & Transfer	110 (56.1)	220 (65.5)	510 (74.6)	840 (69.1)
Easy to Access	171 (87.2)	278 (82.7)	584 (85.4)	1033 (85.0)
Effectiveness	82 (41.8)	209 (62.2)	181 (26.5)	472 (38.8)
Time Saving	91 (46.4)	223 (66.4)	501 (73.2)	815 (67.0)

Note: Numbers in parentheses denote percentages (Respondents were permitted to give multiple answers)

Table 7 shows that majority of the respondents (85%) agreed that 'Easy to Access the information' is the main benefit of accessing electronic information resources, followed by 69.1% say 'Easy to Download and Transfer', 67.1% described 'Easy to Search', 67% said it is 'Time Saving' and 38.8% say it is 'Effectiveness'.

It is evident from the table that 'easy to Access' plays a significant role than the remaining factors in their expectations.

8. Nature of Difficulties faced by the Respondents while accessing Electronic Information Resources: The distribution of respondents regarding facing difficulties while accessing Electronic Information Resources is shown in Table No.8.

Table No.8: Distribution of Respondents regarding facing difficulties while accessing Electronic Information Resources

Nature of difficulties	Nature of Respondents			Total (N=1216)
	Faculty Members (n=196)	PG Students (n=336)	UG Students (n=684)	
Lack of searching knowledge	20 (10.2)	223 (66.4)	468 (68.4)	711 (58.5)
Lack of computer knowledge	10 (5.1)	27 (8.0)	57 (8.3)	94 (7.7)
Lack of knowledge in using databases	19 (9.7)	293 (87.2)	591 (86.4)	903 (74.3)
Internet connectivity related difficulties	186 (94.9)	21 (6.3)	63 (9.2)	270 (22.2)
Lack of Infrastructure	187 (95.4)	314 (93.5)	618 (90.4)	1119 (92.0)
Readability difficulties	3 (1.5)	34 (10.1)	33 (4.8)	70 (5.8)
Inconvenience	120 (61.2)	170 (50.6)	362 (52.9)	652 (53.6)
Too much information is retrieved	38 (19.4)	55 (16.4)	102 (14.9)	195 (16.0)
Radiation and other Health related difficulties	133 (67.9)	223 (66.4)	462 (67.5)	818 (67.3)
downloading difficulties	130 (66.3)	186 (55.4)	393 (57.5)	709 (58.3)

Note: Numbers in parentheses denote percentages (Respondents were permitted to give multiple answers)

Table 8 reveals that majority of the respondents (92%) said that 'lack of infrastructure' is the main difficulty faced by them while accessing the electronic information resources, followed by 74.3% 'lack of knowledge in using databases', 67.3% 'Radiation and other Health related difficulties', 58.5% 'lack of searching knowledge', 58.3% mentioned the 'downloading difficulties' faced by them.

It is noticed that a majority of the respondents (92%) facing difficulties due to 'lack of infrastructure' and less number of respondents (7.7%) said 'Lack of computer knowledge' is the difficulty faced by them while accessing electronic information resources.

V. CONCLUSION

The study aimed to find out the awareness of electronic information resources by the users of the Engineering Colleges, Chittoor District, Andhra Pradesh. The respondents used the electronic information resources frequently for keeping the information up-to-date in the subject area. The majority of the respondents (85%) agreed that 'Easy to Access the information' is the main benefit of accessing electronic information resources and majority of the respondents (92%) said that 'lack of infrastructure' is the main difficulty faced by them while accessing the electronic information resources.

Hence, it concludes that the Libraries of Engineering Colleges shall take steps to strengthen the infrastructure facilities with more electronic information resources.

VI. REFERENCES

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