Use and Impact of E-Resources by Faculty Members and PG Students of K.S. Institute of Technology, Bangalore: A Case Study

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Abstract - **The present study examines the use of e- resources at K.S. Institute of Technology, Bangalore, Karnataka State, India. A questionnaire was prepared to elicit opinions from the users of e-resources. The responses were gathered from 98 users (80 faculty and 18 PG Students from Engineering College). The results of the survey provide information about the type of e-resources used, purposes for which e-resources used, problems faced by the users while using e-resources, benefits of e-resources over conventional resources, success rate of finding required information in e-resources adequacy of information in e-resources, influence of e-resources on academic efficiency and views regarding features of e-resources on the basis of results of the survey some suggestions have been put forth for optimum utilization and exploitation of e- resources.**

Keywords: **Faculty Members, PG Students, Use of E-Resources**

I. INTRODUCTION

Advances in Computer Applications during the past few decades have brought radical changes in the way information is gathered, stored, organized, accessed, retrieved and consumed. The applications of computers in information processing have brought several products and services into the system. The internet and the web are constantly influencing the development of new modes of scholarly communication e-resources have emerged as a powerful media of communication. Their potential of delivering the goods is quite vast, as they overcome successfully the geographical limitations associated with the print media. Further, the distribution time between product publication and its delivery has drastically reduced. These can be used for efficient retrieval and meeting information needs. This important fact is convincing many libraries to move towards digital/e-resources, which are found to be less expensive and more useful for easy access.

II. K.S. INSTITUTE OF TECHNOLOGY LIBRARY

K.S. Institute of Technology library which made its modest beginning in 1999 with 3,000 books only has now come to acquire a rich collection of 33,000 volumes up to November 2011. It subscribes to 64 journals both national and international and also provides access to e-journals like IEEE, Wiley Blackwell, Springer, Mc-Graw Hill, J-Gate, Elsevier and ASTM Digital Library under AICTE Consortium. It covers all areas in Engineering, Science and Humanities. There is a campus-wide networking. All the faculty members and PG students can access e-resources in their respective department, internals labs as well as in the library.

III. OBJECTIVES OF THE STUDY

The study has been undertaken with the following objectives:

a. To study the use of different types of e-resources by the faculty and PG students of K.S. Institute of Technology;

b. To know the purposes for which e-resources are being used;

c. To know the problems encountered by the users while accessing and using e-resources;

d. To know the benefits of e-resources over the traditional ones;

e. To know the influence of e-resources on the academic efficiency of the users;

f. To suggest means and ways for optimum utilization and exploitation of e-resources.

IV. METHODOLOGY

It was decided to conduct a survey of 98 users of e-resources (80 Faculty and 18 PG students of Engineering & Technology). For the purpose of study, a questionnaire was designed. The respondents were given the pre-structured questionnaire irrespective of their status. All the respondents shared great enthusiasm in filling up the questionnaire. They were interviewed to fill the gaps.

V. ANALYSIS AND DISCUSSION

In order to access the frequency of using e-resources, the respondents were asked to indicate any one of six categories of time lag. It has been found from Table III that 12.24% of respondents make use of e- resources daily, 37.75 % of respondents use e-resources 2-3 times a week, 24.48 % of respondents use e-resources once in a week and only 14.28 % use e-resources 2-3 times in a month. 6.12 % of respondents use e-resources once in a month and 5.10 % use the e-resources occasionally.

TABLE I CLASSIFICATION OF RESPONDENTS ACCORDING TO STATUS

S. No.	Status	No. of Respondents	%
1	Professor	3	3.7
2	Asst. Professor	20	25
3	Senior Lecturer	25	31.2
4	Lecturer	32	40
	Total	80	
5	PG Students	18	100
	Grand Total	98	100

Table IV shows that 100 % of the respondents are using e-journals followed by 35.71 % online databases. None of the respondents has shown preference for using CD-Rom databases.

Table V shows that 14.28 % of respondents are acquiring the necessary skills for e-resources via self-instruction followed by guidance from colleagues and friends (30.61 %). The percentage of PG students who have learnt the skills through guidance from colleagues far exceeds 33.33 % than that of faculty (30%). About 55.10 % of the respondents acquired the skills through trial and error.

TABLE II DEPARTMENT-WISE BREAK- UP OF RESPONDENTS

Category	Department-wise					
	Mechanical Engg.	Electronics & Communication Engg.	Computer Science Engg.	Telecommun-cation Engg.	Basic Science	Total
Faculty	22	23	15	9	11	80
P.G. Students	18	-	-	-	-	18
Total	40	23	15	9	11	98

TABLE III FREQUENCY OF USE OF E-RESOURCES

Frequency	No. of Responses					
	Faculty	%	PG Students	%	Total	%
Daily	8	10.00	4	22.22	12	12.24
2-3 Times a Week	25	31.25	12	66.66	37	37.75
Once a Week	22	27.50	2	11.11	24	24.48
2-3 Times a Month	14	17.5	-	-	14	14.28
Once a Month	6	7.50	-	-	6	6.12
Occasionally	5	6.25	-	-	5	5.10
Total	80	100	18	100	98	100

TABLE IV TYPES OF E-RESOURCES USED

Frequency	No. of Responses					
	Faculty	%	PG Students	%	Total	%
E-Journals	80	100.00	18	100.00	98	100.00
On-line Data Bases	24	30.00	11	61.11	35	35.71
CD-Rom DataBases	-	-	-	-	-	-

Table VI indicates that 36.73 % of the respondents use e-resources for research/project work, 34.69 % for publishing articles/books, 9.18 % for teaching purposes, 8.16 % for finding relevant information in the area of specialization, 6.12 % for getting current information and 5.10 % keeping up-to-date in their subject field.

Table VII reveals that 71.42 % of the respondents find the information in e-resources always adequate, while 28.57 % find the information adequate only sometimes. The percentage of respondents who find the information in e-resources always adequate is greater among the faculty (72.50) then that of the PG students (66.66 %).

TABLE V METHODS OF LEARNING E-RESOURCES SKILLS

Methods of Learning E-Resources Skills	No. of Responses					
	Faculty	%	PG Students	%	Total	%
Trial and Error	46	57.5	8	44.44	54	55.10
Guidance from Friends/Colleagues	24	30.0	6	33.33	30	30.61
Guidance from the Library Staff	-	-	-	-	-	-
Guidance from the Computer Staff	-	-	-	-	-	-
Training Offered by the Institution	-	-	-	-	-	-
Self-Instruction	10	12.5	4	22.22	14	14.28
External Courses	-	-	-	-	-	-

TABLE VI PURPOSE OF USING E-RESOURCES

Purpose	No. of Responses					
	Faculty	%	P.G. Students	%	Total	%
For Research /Project Work	34	42.50	2	11.11	36	36.73
For Teaching Purposes	9	11.25	-	-	9	9.18
For Publishing Articles/Books	25	31.25	9	50.00	34	34.69
For Keeping Up To Date in Your Subject Area	4	5.00	1	5.55	5	5.10
For Finding Relevant Information in the AreaoOf Specialization	5	6.25	3	16.66	8	8.16
For Getting Current Information	3	3.75	3	16.66	6	6.12

TABLE VIII PROBLEMS FACED WHILE USING E-RESOURCES

Problems	No. of Responses					
	Faculty	%	PG Students	%	Total	%
Slow Access Speed	32	40.00	9	50.00	41	41.83
Difficulty in Finding Relevant Information	14	17.50	3	16.66	17	17.34
It Takes Too Long Time to View/ Download Pages	21	26.25	2	11.11	23	23.46
Too Much Information is Retrieved	6	7.50	1	5.55	7	7.14
Difficulty In Using E-Resources Due to Lack of IT Knowledge	1	1.25	2	11.11	3	3.06
Limited Access to Computers	3	3.75	1	5.55	4	4.08

Table VIII shows the problems faced by respondents in using e-resources. The most common problems faced by the users are that of slow access speed (41.83 %). About 23.46 % of the respondents are of the opinion that it takes too long time to view/download pages. 7.14% report that too much information is retrieved which makes it difficult to select the relevant one. 3.06 % of respondents express that they cannot make use of e-resources effectively due to lack of proper IT Knowledge and 4.08 % state limited access to computers as barrier to use e-resources.

Table IX indicates that more than 57 % of the respondents feel that in comparison to conventional documents, e- resources are time saving and more informative. More than 19% of respondents also admit that these are more useful, easy to use and more preferred.

Table X indicates the success rate of finding the required information in the e-resources. About 40.81% of the respondents succeed in the range of 75.99 %; 34.69 % in the range of 50-74 %; 15.30 % in the range of 25.49 % and 9.18 % in the range of less than 25 %.

TABLE IX BENEFITS OF E-RESOURCES OVER CONVENTIONAL DOCUMENTS

Benefits	No. of Responses					
	Faculty	%	PG Students	%	Total	%
Time Saving	49	61.25	7	38.88	56	57.14
Easy toUse	14	17.50	5	27.77	19	19.38
More Informative	7	8.75	3	16.66	10	10.20
More Useful	6	7.50	2	11.11	8	8.16
More Preferred	4	5.00	1	5.55	5	5.10

TABLE X SUCCESS RATE

Success Rate	No. of Responses					
	Faculty	%	PG Students	%	Total	%
100%	-	-	-	-	-	-
75-99%	32	40.00	8	44.44	40	40.81
50-74%	28	35.00	6	33.33	34	34.69
25-49%	12	15.00	3	16.66	15	15.30
Less than 25%	8	10.00	1	5.55	9	9.18
Total	80	100.00	18	100.00	98	100.00

TABLE XI INFLUENCE OF E-RESOURCES ON ACADEMIC EFFICIENCY

Influence	No. of Responses					
	Faculty	%	PG Students	%	Total	%
Expedited the research process	24	30.00	2	11.11	26	26.53
Improved professional competence	22	27.50	8	44.44	30	30.61
Access to current up-to-date information	12	15.00	3	16.66	15	15.30
Access to a wider range of information	9	11.25	2	11.11	11	11.22
Easier access to information	7	8.75	2	11.11	9	9.18
Faster access to information	6	7.50	1	5.55	7	7.14

TABLE XII E-RESOURCES BE GOOD SUBSTITUTE FOR CONVENTIONAL RESOURCES

Response	Faculty	%	PG Students	%	Total	%
Yes	80	100.00	18	100.00	98	100.00
No	-	-	-	-	-	-
Total	80	100.00	18	100.00	98	100.00

Table XI shows the influence of e-resources in the academic efficiency of the faculty and the PG students. The information available in e-resources has proved to be a great asset to many of the respondents. 30.61% have been improved professional competence; 26.53 % has resulted in expediting the research process and 15.30% access for current and up-to-date information.

Table XII reveals that all the respondents feel that e-resources can be good substitute for conventional resources if the access speed is fast for the use of e- resources.

Table XIII depicts the opinions of faculty regarding the features of e-resources for their academic work. 63.5% respondents expressed their views that availability of e-resources is very good; 58.75% respondents expressed performance is very good; 15% expressed easy to use and only 6.25 % of respondents expressed easy to use as fair.

Table XIV indicates almost similar opinion of PG students to that of faculty regarding the features of e-resources as sources for the research work.

TABLE XIII FACULTY OPINIONS REGARDING THE FEATURES OF E-RESOURCES

Features	Poor	%	Fair	%	Good	%	Very Good	%	Excellent	%
Accessibility	-	-	10	12.50	47	58.75	23	28.75	-	-
Accuracy	-	-	13	16.25	37	46.25	22	27.50	8	10.00
Availability	-	-	9	11.25	20	25.00	51	63.75	-	-
Consistency	-	-	10	12.50	60	75.00	10	12.50	-	-
Easy to Use	-	-	5	6.25	45	56.25	12	15.00	18	22.50
Flexibility	-	-	-	-	58	72.50	22	27.50	-	-
Permanence	-	-	11	13.75	22	27.50	47	58.75	-	-
Timeliness	-	-	-	-	36	45.00	44	55	-	-
Uniqueness	-	-	-	-	49	61.25	31	38.75	-	-

TABLE XIV PG STUDENTS OPINIONS REGARDING THE FEATURES OF E-RESOURCES

Features	Poor	%	Fair	%	Good	%	Very Good	%	Excellent	%
Accessibility	4	22.22	3	16.66	9	50.00	2	11.11	-	-
Accuracy	-	-	3	16.66	8	44.44	6	33.33	1	5.55
Availability	1	5.55	4	22.22	7.12	66.66	6	33.33	-	-
Consistency	3	16.66	6	33.33	9	50.00	-	-	-	-
Easy to Use	-	-	-	-	12	66.66	6	33.33	-	-
Flexibility	2	11.11	4	22.22	6	33.33	3	16.66	3	16.11
Permanence	-	-	6	33.33	9	50.00	2	11.11	1	55.55
Timeliness	3	16.66	4	22.22	6	33.33	3	16.66	2	11.11
Uniqueness	2	11.11	3	16.66	9	50.00	3	16.66	2	11.11
Usefulness	-	-	4	22.22	10	55.55	3	16.66	1	5.55

VI. SUGGESTIONS

Based on the findings of the study, the following suggestions are put forward to improve the use of e-resources among the faculty and PG students.

a. The problem of slow access speed can be overcome by increasing the bandwidth.

b. Access to more e-journals should be provided.

c. Training programmes regarding how to use e-resources effectively should be organized at regular intervals.

d. Awareness among the faculty and the PG students should be created to use e-resources to obtain current information.

e. An online catalogue of e-resources containing subject, alphabetical, title indices should be made available in the library portal to offer meta-search.

f. E- Resources should be made easy to use and easy to learn to users. The library web page should provide online guide to e-resources and various search options beyond key words to e-resources. This will help the users to find the desired content and will also maximize the use of e-resources and satisfaction of users.

VII. CONCLUSION

To conclude, we can say that e-resources whose history spans only a few years have emerged as one of the most important media of communication. These have radically changed the way the information is gathered, organized, accessed and consumed. They have exerted a great influence on the academic and professional competence of the academic community. These can prove a great asset to support teaching and research programmes of the institute if faster and easier access to all the required e- resources is provided to users.

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