

Perception towards AICTE Prescribed E-Resources: A study of Post Graduate Students of Malnad College of Engineering, Hassan, Karnataka

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***Abstract** - The study presents the awareness and use of electronic resources by the post graduate students of Malnad College of Engineering, Hassan, Karnataka. The main aim of this study is to know the Perception, awareness and usage of electronic resources prescribed by AICTE. As a tool, questionnaire was distributed among the respondents of various departments. Out of 125 questionnaires distributed, response received were 122 with a response rate of 97.60%. It is observed by the opinion of respondents with regard to the influence of e-resources, majority of respondents have strongly agreed that e-resources influence the quality of learning and research. Further, the study found that many AICTE prescribed e-resources are under utilised.*

Keywords: Electronic resources; AICTE; E-Resources; User Studies; Malnad College of Engineering; Information and Communication Technology, ICT.

INTRODUCTION

The academic and technical educational institutions strive to impart quality education. The engineering colleges in India have an objective to train the band of students who are skillful and able to handle the consequences they face. Hence, their focus is on proving quality information. Meanwhile, the Information and Communication Technology (ICT) has become boon to the engineering colleges due to its capability to provide access to ample collection of e-resources. The use of e-resources and services is a common phenomenon among the students of engineering colleges (Alwarammal et al., 2009; Merugu and Bandi, 2014). At the same time, All India Council of Technical Education has prescribed the subscription of e-resources by publishers like IEEE, Sage, Springer, and Wiley and so on. Hence, the engineering college libraries tend to access huge volume of e-resources and thereby try to fulfill the objective of their parent body. Keeping this a concern, this study is an attempt to identify the use pattern of AICTE prescribed e-resource by students of Malnad college of Engineering, Hassan, Karnataka.

REVIEW OF RELATED LITERATURE

Extensive numbers of research papers have been published on the use of e-resources in academic institutions. The studies have focused on the extent of use of e-resources, the

purpose of use of e-resources as well as the problem occurred while using e-resources. An early study by Alwarammal et al. (2009) examined the use of e-resources by students and faculty in engineering colleges in Tamil Nadu. Study shows that 50% of the faculty and students were aware of e-resources and the same percentage of respondents was using it. The major purpose of using e-resources and databases is for project work, presentation, and research.

Okon E. Ani, (2010) examined the extent of use of e-resources by students in three Nigerian universities viz., University of Calabar, University of Uyo, and Rivers State University of Science and Technology, Port Harcourt. The study found that the use of internet was higher and students depended on commercial cyber cafes to browse the Internet. The study also found that the access to the Internet in Universities is poor. Even though the use of Internet was higher, the use of e-resources and e-databases was very less. The study highlighted the need for extensive training and infrastructure to promote the use of e-resources. Similar kind of study conducted by Kannapanavar and Manjunatha (2010) focused on the use of e-services. Study found that 53.2% of users were using online public access catalogue (OPAC) to locate their reading materials.

Dinesh K. Gupta (2011) conducted a study to know the use of UGC Infonet e-journals consortium by faculty members and research scholars of physics and chemistry subjects at Kurukshetra University. Study found that the faculty and scholars were more depended on the e-journals rather than print journals. The study also emphasized that the dependency was more on open access journals. Further analysis showed that the users require more training to use the UGC-Infonet e-resources effectively.

Merugu and Bandi (2014) studied the management of e-resources in Engineering college libraries at Karimnagar, Telangana. Study highlighted that problem of declining budget in the development of electronic resources collections and suggested to improve the operational efficiency to meet the obstacles in the development of e-resources. Further Selvaraj and Rathinasabapathy investigated the use of e-resources pattern among faculty members of 16 engineering colleges in Tiruvallur district, Tamil Nadu. Data collected from 396 respondents shows that 78.79% of faculty browsed the Internet for more than four hours. Another major finding of this study was 29.29% of faculty use e-journals daily.

Rama Krishna and Rama R. Raj (2017) made an attempt to know the awareness and usage of e-resources by Post-graduate students at Oxford Group of Institutions, Bangalore. A total of 135 students were selected of which 113 responded. They found that all 113 students who responded were using e-resources whereas 66.30% were using Science Direct database for scholarly information. A recent study by Rafiq (2018) explored that the faculties of CMH Lahore Medical College and Institute of Dentistry use e-resources. The study found that the faculties were aware of e-resources and the most used medical science databases like MEDLINE, Pak-Medinet and WHO electronic database. The faculty also demanded for extensive training to improve the use of e-resources.

OBJECTIVES OF THE STUDY

1. To know the frequency of visit to the college library.
2. To know the purpose of use of library, Internet, and e-resources.
3. To know the association between the purpose of using library with gender and qualification of respondents.

4. To know the relationship between the years of experience in the use of Internet and the knowledge of use of Internet.
5. To know the association between the extent of use AICTE prescribed e-resources and gender as well as qualification of respondents.
6. To elicit the opinion of Post Graduate students about the benefits of e-resources.
7. To find out the problems associated with the use of e-resources.

METHODOLOGY

The study intended to know the use of AICTE prescribed e-resources among the Post Graduate students of Malnad College of Engineering, Hassan. A structured questionnaire was designed and the same was distributed to 125 PG students of which 122 were received back. The collected data was further entered into SPSS 19.0 version. Necessary statistical test such as Chi-square (χ^2), and Pearson correlation test were applied to know the association and relationship between related variables.

ANALYSIS AND INTERPRETATION OF DATA

The study is confined to the Post graduate students of Malnad College of Engineering, Hassan. A total of 125 questionnaires were distributed among the Post Graduate students of Malnad College of Engineering, Hassan. In return, 122 filled questionnaires were received with a response rate of 97.60%.

Table-1: Demographic features of the respondents

Course	Gender (N=122)			
	Male	Percentage	Female	Percentage
M.Tech	24	19.67	71	58.20
MCA	6	4.92	21	17.21
Total	30	24.59	92	75.41

Table-1 reveals that among the 122 respondents 92 (75.41%) are female and 30 are Male (24.59). Further, majority of respondents are pursuing M.Tech course.

Table-2: Frequency of visit

Particulars	Frequency (N=122)				
	Daily	Weekly	Fortnightly	Monthly	Occasionally
Visit to college library	-	62	4	32	24
Percentage	-	50.82	3.28	26.23	19.67

It is clear from table 2 that majority of respondents visit college library weekly once (50.82%) followed by monthly (26.23%), and occasionally (19.678%).

Table-3: Purpose of visit cross-tabulated with Gender and qualification

Purpose of visiting the library	Mean*	P value for χ^2	
		Gender	Qualification
To prepare notes	2.32	.691	.000
To borrow/return the books	1.81	.575	.000
To refer periodicals/journals	2.8	.003	.004
To use thesis & dissertations	3.2	.908	.000
To prepare for assignments and seminars	2.57	.290	.000
To use electronic/digital resources(E-books, E-journals, Digital library etc.,)	2.34	.283	.001
To access internet, online resources	2.54	.195	.000
To get printouts and photocopies	3.88	.393	.017
To read newspapers and magazines	3.11	.210	.000

* Mean value is calculated on the basis of 5 point scale

1- To great extent, 2- To moderate extent, 3-To little extent, 4- Cannot say, 5- Not at all

An attempt has been made to know the purposes of visiting the college library by Post Graduate students. Table-3 indicates that the prime purpose of visit to college library is to lending books (Mean=1.81), followed by prepare notes (Mean=2.32), and use electronic resources (Mean=2.34). Table-3 also reveals that the association between gender and purpose of using periodicals in library are associated ($p=.003$). While no other purposes of visiting college library are associated with gender of the respondents ($p\text{ value} = >0.05$). However, the qualification of respondents and all purposes mentioned in the above table are associated and the association is statistically significant.

Table-4: Time of using internet cross tabulated with knowledge of using internet

Time of use of internet	Knowledge of use of internet			Total	Percentage	t	P value for Pearson correlation
	Excellent	Good	Average				
1 year	0	16	0	16	13.11	1.517	0.132
2-5 years	8	68	9	85	69.67		
6-10 years	0	17	4	21	17.21		
Total	8	101	13	122	100.00		

In this study a was posed with respondents regarding the year of experience and the knowledge of using Internet. Table-4 clearly indicates that the highest percentage of respondents (69.67%) have two to five years of experience followed by 6-10 years (17.21%). An attempt was made to know the correlation between the time in the use of Internet and the level of knowledge of using Internet indicates that the relationship is positively correlated ($t=1.517$) and the correlation is not statistically significant ($p=0.132$). Hence, it can be arguable that the time duration of using Internet has no influence on the expertise in the use of Internet.

Table-5: Purpose of using Internet cross-tabulated with Gender and qualification

Purpose	Mean*	P value for χ^2	
		Gender	Qualification
To access Electronic Information sources (E-books, E-journals, Digital library etc.,)	1.68	.708	.000
Data communication(E-mail etc.,)	1.78	.565	.033
For blogging/creating content & participating in discussion forum	3.97	.283	.000
To read News papers & Magazines	2.36	.505	.002
Online shopping/Ticket Booking/Bill payments	2.34	.700	.000
Online Banking	2.45	.376	.000
Explore Job opportunities	2.35	.146	.000
Entertainment (games, movies, songs, TV shows)	1.8	.008	.000
Social Networking Sites	1.79	.046	.000

* Mean value is calculated on the basis of 5 point scale

1- To great extent, 2- To moderate extent, 3-To little extent, 4- Cannot say, 5- Not at all

Table-5 shows that the major purpose of using the Internet is to access e-resources (mean=1.68) followed by data communication via email (Mean=1.78), Social networking sites (mean=1.79), and entertainment (mean=1.8). Further, table-5 indicates that there is a strong association between the gender and use of Internet for entertainment (p=.008) and Social networking sites (p=.046). Further analysis shows that the qualification of respondents is strongly associated with the different purposes mentioned in table-5 and the association is statistically significant. Hence, it can be concluded that the qualification of respondents determines the use of Internet for various activities over the web.

Table-6: Extent of use of e-resources cross-tabulated with Gender and qualification

E-resource	Mean*	P value for χ^2	
		Gender	Qualification
E-Books	2.16	.356	.000
E-Journals	2.00	.082	.000
E-Conference Proceedings	4.54	.612	.094
E-Standards and specifications	4.47	.790	.054
E-Patents	4.80	.701	.213
E-Thesis and Dissertations	4.24	.198	.004
E-News papers & E-Magazines	2.80	.648	.004
E-Reference sources (Dictionary, Encyclopedias etc.,)	2.77	.458	.246
E-Databases(online)	3.78	.502	.000
E-Databases(offline) on CD/DVD	4.11	.526	.000
Blogs, Wikis etc.,	3.43	.076	.000
Subject gateways	4.04	.145	.054
Institution repositories (old question papers, project reports)	2.61	.508	.000
Library OPAC	3.28	.400	.000

* Mean value is calculated on the basis of 5 point scale

1- To great extent, 2- To moderate extent, 3-To little extent, 4- Cannot say, 5- Not at all

An attempt has been made to know the extent of use of e-resources by post graduate students. It is clear from mean values which range between 2.00 to 3.28, the majority of respondents use e-resources to moderate extent to a little extent.

The data presented in the above table clearly indicates that there is no association between the gender and the use of e-resources (p value = >0.05). While, the qualification and the use of e-resources such as e-books, e-journals, e-theses and dissertations, e-newspaper, e-databases, blogs, institution repositories, and Library OPAC (p value = <0.05). However, the use of e-resources like e-conference proceedings, e-standards, e-reference sources, e-patents, and subject gateways are not associated with the qualification of the respondents (p value = >0.05)

Table-7: Association between the use of AICTE prescribed e-resources with Gender and qualification

AICTE prescribed e-resources	Mean*	P value for χ^2	
		Gender	Qualification
IEEE/IEL online	2.12	.662	.000
Springer link Journals	3.62	.421	.000
Springer E-books	4.90	.230	.278
McGraw-Hill's Access Engg. (E-Books)	5.00	-	.148
Wiley Blackwell journals	5.00	-	-
ASME journals	4.44	.489	.011
CRC netbase E-Books (Taylor and francis)	4.90	.230	.278
J-gate engineering sciences	5.00	-	-
Elsevier's Science Direct	4.55	.813	.349
ASTM digital library	5.00	-	-
Proquest Engineering	2.82	.166	.164
NPTEL	4.21	.589	.000
EBSCO Management	2.57	.465	.173
J-gate Management	4.88	.808	.223
Gale Cengage (Business and company resource)	4.88	.808	.223
Emerald Insight	4.88	.808	.223
RMIT (Informit business collection)	4.88	.808	.223
Proquest Management	4.88	.808	.223
EBSCO Management	4.88	.808	.223

* Mean value is calculated on the basis of 5 point scale

1- Most Frequently, 2- Frequently, 3-Less frequently, 4- Cannot say, 5- Not at all

An attempt has also been made to know the use of AICTE prescribed e-resources. Table-7 shows that the IEEE/IEL online (mean=2.12), EBSCO Management (mean=2.57), and Proquest Engineering (mean=2.82) are used either frequently or less frequently. Further analysis shows that other AICTE prescribed e-resources are neglected by the PG students of Malnad college of Engineering. Meanwhile, the Gender of respondents is not associated with the use of AICTE prescribed e-resources. But the qualification of respondents is associated with the use of IEEE/IEL online ($p=.000$), Springer link journals ($p=.000$), NPTEL ($p=.000$), and ASME journals ($p=.011$).

Table-8: Respondents' opinion about the benefits of e-resources

Benefits of e-resources	Mean*	P value for χ^2	
		Gender	Qualification
Provide better access to information	1.77	.021	.001
Saves time	1.80	.019	.030
Access to current (up-to-date) information is possible	1.90	.015	.000
24/7 and seamless access to information	2.21	.034	.000
Access to comprehensive information	2.14	.100	.000
Information is accessible in different formats (pdf, html, word etc.,)	1.64	.018	.054
Has increased research collaboration with others	2.31	.199	.000
Decrease the use of printed sources	2.30	.200	.000
Easy portability of Information(copy, E-mail etc.,)	1.67	.024	.018
Can manage references easily	1.97	.052	.000
Hyperlinks facilitate navigation	2.62	.183	.000

* Mean value is calculated on the basis of 5 point scale

1- Strongly Agree, 2- Agree, 3- Cannot say, 4- Disagree, 5- Strongly disagree

Table-8 states the opinion of respondents with regard to the benefits of e-resources. Majority of respondents strongly agreed that the e-resources are beneficial because they are accessible in different formats (mean=1.64), easy portability of information (mean=1.67), better access to information (mean=1.77), and saves time (mean=1.80). Interestingly, less number of respondents are partially agreed that e-resources decrease the use of print sources, while, a good number respondents have neutral opinion (mean=2.30). Further, table-8 also indicates that the qualification of respondents is strongly associated with positive opinion of respondents in relation to the benefits of use of e-resources.

Table-9: Problems encountered while using Electronic Information resources

Problems encountered while using EIRs	Number (N=122)	Percentage
Lack of computers with internet facilities in college	13	10.66
Power failure/power cuts	16	13.11
Slow internet connectivity	22	18.03
Inability to use computer/ lack of IT skills	9	7.38
Selecting Search terms	9	7.38
Finding relevant information	13	10.66
Server down problems	13	10.66
Changing in URLs	9	7.38
Lack of assistance by library staff	9	7.38

A question has also been asked to know the problems encountered by respondents while using the electronic information resources. It is clear from the data in table-9 that very less percentage of respondents pointed out the problems in the use of electronic information resources. The major problems encountered are slow internet connectivity (18.03%), followed by power failure (13.11%).

Table-10: Opinion about the influence of e-resources on students

Opinion	Mean*	SD
Use of Electronic books have increased in comparison with conventional books	1.79	.80
Access to E-resources is a Pre-requisite to satisfy the Information needs in the present scenario	1.99	.82
E-resources act only as a supplement to print medium	2.17	1.23
With influence of E-resources, the quality of learning/research has improved	1.78	1.17

* Mean value is calculated on the basis of 5 point scale

1- Strongly Agree, 2- Agree, 3- Cannot say, 4- Disagree, 5- Strongly disagree

Table-10 indicates the opinion of respondents with regard to the influence of e-resources. Majority of respondents have strongly agreed that e-resources influence the quality of learning and research (mean=1.78), followed by the use of e-books have increased (mean=1.79), and e-resources are required to satisfy the information needs (mean=1.99).

DISCUSSION AND CONCLUSION

The response received were 122 with a response rate of 97.60%. The study found that majority of respondents is female and pursuing M.Tech course. The study also found that borrowing books, preparing notes, and reading e-resources are the key purposes of use of library. Interestingly, the study identified that the years spent in the use of Internet has no influence on the knowledge about the use of Internet.

The Internet is highly used to for e-mail, Social networking sites, and entertainment purposes. The significant role of college library in this regard is to propagate the e-resources extensively to the users. Hence, the Internet could be more productive for learning and research purposes. Further, the study found that many AICTE prescribed e-resources are underutilized. Undoubtedly, the AICTE prescribed e-resources enhance the level of understanding of advanced topics in engineering. Hence, the library staffs need to create awareness about these resources and the accessibility to need to be enhanced.

Another major finding of the study is the use of e-patents, e-conference proceedings, and e-standards are very less among the PG students. Hence, awareness about these resources has to be created among PG students, so that the extensive use of research bound information is possible.

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