Awareness of INDEST E-Resources in IITs: A study

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Abstract - *This study examines the awareness of INDEST E-resources by IIT faculty with different demographics like Name of IITs, Designation, Gender, Age and Computer literacy/ computer qualification. It indicates that Awareness is created by Library professional across IIT is higher compared to other source of awareness. IIT-Kharagpur is 78% which is highest in this category and lowest is IIT Delhi which is 42% the chi square value is 62.002 and sig value is .000 (< .05), hence difference are statistically significant, Awareness is created by Library professional across Designation is higher compared to other source of awareness. Professor is 64% which is highest in this category and lowest is Assistant Professor which is 55% the chi square value is 23.227 and sig value is .000 (< .05), hence difference are statistically significant.*

Keywords: INDEST Consortium; AICTE Consortium; IITs; E-Resources; IIT Faculty; INDEST E-Resources and Awareness.

1 Introduction

Many libraries across the globe are the beneficiaries of unlimited electronic resources. The users of academic libraries are able to access electronic resources as easily as print information. The libraries of IITs are the pioneers in embracing this change. They are the first and foremost institutions to initiate INDEST library consortia. The INDEST library Consortia has tremendously expanded and has led to the provision of different kinds of services to the users. The issues of lack of funds and the struggle to cope with purchase of books and other resources and the budget cuts is very easy to solve due to the optimum utilization of consortia.

These days the service qualities of an institution are measured in terms of digital collections, e-resources, networking element, ICT tools, etc. Electronic information is the most recent development in information technology and is among the most powerful implement ever invented in human history. The library users' satisfaction plays a crucial role in the enlargement and provisions of the library services. The potential users' feedback regarding the library resources, services and facilities should be considered for providing necessary resources and amenities in the library. In particular, academic institutions need to measure the users' satisfaction to maintain the quality in all the activities. Computers and computer applications have been widely initiated, and an integrated library system has been installed. The Library provides remote access to e-resources. In fact, the dawn of a new era in library services and access to resources has risen in IIT-Guwahati in harmony with the worldwide information revolution in academia.

Consortium is very important for the libraries for solving the today's burning problems like information explosion, diversity of users need, financial crunch and so on. Some of the examples of library consortia initiatives in India are INDEST-AICTE Consortium, UGC INFONET Consortium, FORSA Consortium and CSIR Consortium. The electronic journals

are the sources of original and updated information mainly covering studies of science and technology.

2 Literature Review

Some of the similar studies carried out in this area of work are reported here. **Tamrakar and Garg (2016).** opined that Indian Institute of Technology-Guwahati made voluminous efforts to provide better e-resources services to its users. They measure the extent and use of e-resources, information alert services, awareness towards the e-resources, purpose of using the e-resources, attitude of library staff and overall quality of e-services offered by the library of Indian Institute of Technology-Guwahati. 394 survey based questionnaires were distributed and received from PG students, research scholars and faculty members of IIT-Guwahati which were analyzed in this study. The found that e-journals are more popular than print journals; the library regularly invites users views regarding the information constraint; and the library continuously puts forward information alert services to their users. Most of the users are aware about the e-journals/database offered by the library concerned to their subject and also are able to explore the e-resources allied to their area of interest. **Khanchandani, V and Hasan, N (2016).** Indian Institute of Technology, Delhi is one of the premier institutes of India and was established in 1961. To cater the research and the teaching needs of the institute, Central Library, IIT Delhi is providing different resources, services and products to the faculty and the students. To maximize the usage and for increasing the importance, libraries in the present era around the world are adopting the different marketing strategies. Marketing besides providing sustainability, also helps in realizing the goals of libraries. They provide a comprehensive overview on different marketing strategies adopted by libraries with special reference to Central Library, IIT Delhi for reaching to its users and to increase the outreach. The paper is intended to help professionals and the library users in knowing the various resources, services and products provided by the Central Library, IIT Delhi as a model to be explored and followed by other libraries and their administrators. **Srivastava and Verma (2015)** are of the view that **c**onsortium based library subscription to e-journals and electronic full-text databases are picking up good momentum in India. INDEST-AICTE consortium, CSIR consortium, IIM consortium, INFLIBNET's, UGC-INFONET consortium, DRDO consortium and so on are successful ones to name a few. **Khan (2015)** portray that users are the key component of a library. An attempt was made to study the use of e-resource by the users with specific reference to INFLIBNET N-LIST. **Khaparde and Ambedkar (2014)** discuss the developments in ICTs, the growth of ETDs, history of ETD in India. Further the paper presents an account of UGC Regulations 2005 and 2009, INDEST Consortium, ICSSR – NASSDOC and National Knowledge Commissions.

Present study is new compared to the previous studies and no such study has been conducted on the status of use of INDEST E-Resources by the faculty of IITs. Therefore, in this study an attempt is made to study the Age Wise Using of INDEST E-Resources by the Faculty of IITs.

3 Objectives of the study

The main objectives of the study are:
- To know the significant difference between level of awareness and Name of IITs.
- To know the significant difference between level of awareness and Designation.
- To know the significant difference between level of awareness and Gender.
- To know the significant difference between level of awareness and Age.

- To know the significant difference between level of awareness and Computer Literacy.

4. Scope and Limitation of the Study

The present study focuses on the designation wise use of INDEST e-resources by the faculty of top seven Indian Institute of Technology (IITs). This study is limited to top seven Indian Institute of Technology and all of them are governed by the Institutes of Technology Act, 1961 which has declared them as institutions of national importance and further lays down their powers, duties, and framework for governance. The top seven IITs are IIT Kharagpur (IIT Kgp), IIT Bombay (IITB), IIT Madras (IITM), IIT Kanpur (IITK), IIT Delhi (IITD), IIT Guwahati (IITG) and IIT Roorkee (IITR).

5. Methodologies

The survey method was considered most appropriate for this study because it can measure Faculty' background, experience and what they know about electronic information, and it was well suited to the research questions taken up for this study. The data has been obtained by using questionnaires; this data has been standardized for comparison. The questionnaire was designed, keeping in view the objectives of the study for collecting usage data from faculty of different departments of seven IITs. Along with averages, percentages, mean SD, several advanced statistical tools like Analysis of Variance (ANOVA)**,** were used for the purpose of analysis and interpretation.

6. Result and Discussion
Hypothesis of the study

- **Ho:** There is no significant difference between level of awareness and different demographics (Name of IITs, Designation, Gender, Age, Computer literacy).

- **Ha:** There is significant difference between level of awareness and different demographics (Name of IITs, Designation, Gender, Age, Computer literacy).

6.1 Awareness of INDEST E-Resources by Name of the IIT

Table 6.1 showed the cross tabulation between IITs and Awareness of INDEST, Awareness is created by Library professional across IIT is higher compared to other source of awareness. IITKharagpur is 78% which is highest in this category and lowest is IIT Delhi which is 42%, however; in the category Colleagues, IIT Delhi is 36% and lowest is IIT Roorkee with 4%. For awareness created by 'Internet' and IIT, IIT Roorkee has the highest value of 36% and IIT Madras has the lowest value of 9%. For awareness created by Friends, IIT Madras has the highest value of 8% and IIT Roorkee has 0%. The patterns clearly indicates a significant difference, in order to prove this, chi square is employed, the chi square value is 62.002 and sig value is .000 ($< .05$), hence difference are statistically significant.

Chi Square: The $\chi 2$ test indicates that Awareness of INDEST E-Resources by Name of the IIT of the respondents and all IITs have significant association (Chi-Square= 62.002, df = 18 and Sig Value=0.00)

Table 6.1 Awareness of INDEST E-Resources by Name of the IIT

S/N	Mode of Awareness	Name of the IIT							Total
		IITKGP	IITB	IITM	IITK	IITD	IITG	IITR	
1	Friends	2 (4)	7 (7)	7 (8)	2 (3)	1 (3)	5 (7)	0 (0)	24 (6)
2	Library professional staff	36 (78)	50 (49)	56 (64)	24 (69)	15 (42)	45 (64)	22 (65)	248 (60)
3	Internet	6 (12)	11 (11)	8 (9)	4 (11)	7 (19)	17 (24)	11 (32)	64 (16)
4	Colleagues	2 (4)	34 (33)	16 (18)	6 (17)	13 (36)	3 (4)	1 (3)	75 (18)
	Total	46 (100)	102 (100)	87 (100)	36 (100)	36 (100)	70 (100)	34 (100)	411 (100)

Pearson Chi-Square=62.002; df=18; Asymp. Sig. (2-sided)=0.00

(Numbers in brackets indicate percentages)

Key: IITKGP= IIT Kharagpur, IITB= IIT Bombay, IITM= IIT Madras, IITK= IIT Kanpur, IITD= IIT Delhi, IITG= IIT

Guwahati, IITR= IIT Roorkee

6.2 Awareness INDEST E-Resources by Designation

The below table 6.2 showed the cross tabulation between Designation and Awareness of INDEST, Awareness is created by Library professional across Designation is higher compared to other source of awareness. Professor is 64% which is highest in this category and lowest is Assistant Professor which is 55%, however; in the category Colleagues, Professor is 22% and lowest is Assistant Professor with 15%. For awareness created by 'Internet', and Designation, Associate Professor has the highest value of 21% and Professor has the lowest value of 10%. For awareness created by Friends, Assistant Professor has the highest value of 12% and Associate Professor has 1%. The patterns clearly indicates a significant difference in order to prove this, chi square is employed, the chi square value is 23.227 and sig value is .000 (< .05), hence difference are statistically significant.

Chi Square: The $\chi2$ test indicates that Awareness of INDEST E-Resources by designation of the respondents and all IITs have significant association (Chi-Square= 23.227, df = 6 and Sig Value=0.00)

Table 6.2 Awareness INDEST E-Resources by Designation

S/N	Mode of Awareness	Designation			Total
		Professor	Associate Professor	Assistant Professor	
1	Friends	6 (3)	1 (1)	17 (12)	24 (6)
2	Library professional staff	112 (64)	58 (61)	79 (55)	248 (60)
3	Internet	18 (10)	20 (21)	26 (18)	64 (16)
4	Colleagues	38 (22)	15 (17)	21 (15)	75 (18)
	Total	**174 (100)**	**94 (100)**	**143 (100)**	**411 (100)**

Pearson Chi-Square=23.227; df=6; Asymp. Sig. (2-sided)=0.00

(Numbers in brackets indicate percentages)

6.3 Awareness INDEST E-Resources by Gender

Table 6.3 shows the cross tabulation between Gender and Awareness of INDEST, Awareness is created by Library professional across Gender is higher compared to other source of awareness. Female is 62% which is highest in this category and lowest is Male which is 60%, however; in the category Colleagues, Female is 19% and lowest is Male with 18%. For awareness created by 'Internet', and Gender, Male has the highest value of 16% and Female has the lowest value of 11%. Awareness created by Friends, Female has the highest value of 8% and Male has 5%. The patterns clearly indicates a significant difference, in order to prove this, chi square is employed, the chi square value is 1.567 and sig value is .67 (> .05), hence difference is statistically not significant at 5% level of significance.

Chi Square: The $\chi2$ test indicates that Awareness of INDEST E-Resources by gender of the respondents and all IIT's have significant association (Chi-Square= 1.567, df = 3 and Sig Value=0.67)

Table 6.3 Awareness INDEST E-Resources by Gender

S/N	Mode Of Awareness	Gender				Total	
		Male		Female			
1	Friends	19	(5)	5 (8)		24	(6)
2	Library professional staff	209	(60)	39	(62)	248	(60)
3	Internet	57	(16)	7 (11)		64	(16)
4	Colleagues	63	(18)	12	(19)	75	(18)
	Total	**348**	**(100)**	**63**	**(100)**	**411**	**(100)**
	Pearson Chi-Square=1.567; df=3; Asymp. Sig. (2-sided)=0.67						

(Numbers in brackets indicate percentages)

6.4 Awareness INDEST E-Resources by Age in Years

Table 6.4 shows the cross tabulation between Age and Awareness of INDEST, Awareness is created by Library professional across Age is higher compared to other source of awareness. 46-55 age group is 75% which is highest in this category and lowest is 25-35 age group which is 51%, however; in the category Colleagues, 36-45 years is 20% and lowest is >56 age group with 15%. For awareness created by 'Internet', and age group, 36-45 has the highest value of 22% and 46-55 has the lowest value of 5%. Awareness created by Friends, 25-35 has the highest value of 13% and 46-55 has 0%. The patterns clearly indicates a significant difference, in order to prove this, chi square is employed, the chi square value is 33.608 and sig value is .00 ($< .05$), hence difference is statistically significant.

Chi Square: The $\chi 2$ test indicates that Awareness of INDEST E-Resources by Age of the respondents and all IIT's have significant association (Chi-Square= 33.608, df = 9 and Sig Value=0.00)

Table 6.4 Awareness INDEST E-Resources by Age in Years

S/N	Mode Of Awareness	Age In Years								Total	
		25-35		36-45		46-55		>56			
1	Friends	11	(13)	7 (4)		0 (0)		6 (8)		24	(6)
2	Library professional staff	42	(51)	89 (54)		70	(75)	47	(65)	248	(60)
3	Internet	15	(18)	36 (22)		5 (5)		8 (11)		64	(16)
4	Colleagues	13	(17)	33 (20)		18	(19)	11	(15)	75	(18)
	Total	**81**	**(100)**	**164 (100)**		**93**	**(100)**	**72**	**(100)**	**411**	**(100)**

Pearson Chi-Square=33.608; df=9; Asymp. Sig. (2-sided)=0.00

(Numbers in brackets indicate percentages)

6.5 Awareness INDEST E-Resources by Computer Literacy

Table 6.5 showed the cross tabulation between Computer Literacy and Awareness of INDEST, Awareness is created by Library professional across Computer Literacy is higher compared to other source of awareness. 'Good' Computer Literacy is 64% which is highest in this category and lowest is 'Expert' Computer Literacy which is 53%, however; in the category Colleagues, 'Expert' Computer Literacy is 25% and lowest is 'Good' Computer Literacy group with 14%. For awareness created by 'Internet', and Computer Literacy, 'Good' has the highest value of 16% and 'Average' has the lowest value of 14%. Awareness created by Friends, 'Good' has the highest value of 14% and 'Average' has 1%. The patterns clearly indicates a significant difference, in order to prove this, chi square is employed, the chi square value is 8.180 and sig value is .23 (> .05), hence difference is statistically not significant.

Chi Square: The $\chi2$ test indicates that Awareness of INDEST E-Resources by computer literacy of the respondents and all IIT's have significant association (Chi-Square= 8.180, df = 6 and Sig Value=0.23)

Table 6.5 Awareness INDEST E-Resources by Computer Literacy

S/N	Mode Of Awareness	Computer Literacy			Total	
		Expert	Good	Average		
1	Friends	9 (7)	14 (5)	1 (3)	24	(6)
2	Library professional staff	65 (53)	166 (64)	17 (59)	248	(60)
3	Internet	18 (15)	42 (16)	4 (14)	64	(16)
4	Colleagues	30 (25)	37 (14)	8 (24)	75	(18)
	Total	122 (100)	259 (100)	30 (100)	411	(100)

Pearson Chi-Square=8.180; df=6; Asymp. Sig. (2-sided)=0.23

(Numbers in brackets indicate percentages)

7. Conclusion

The growth in electronic library systems has forced to review of the library services. The awareness is created by Library professional across IIT is higher compared to other source of awareness. IIT-Kharagpur is 78% which is highest in this category and lowest is IIT Delhi which is 42%the chi square value is 62.002 and sig value is .000 (< .05), hence difference are statistically significant, Awareness is created by Library professional across Designation is higher compared to other source of awareness. Professor is 64% which is highest in this category and lowest is Assistant Professor which is 55%the chi square value is 23.227 and sig value is .000 (< .05), hence difference are statistically significant, Awareness is created by Library professional across Gender is higher compared to other source of awareness. Female

is 62% which is highest in this category and lowest is Male which is 60%the chi square value is 1.567 and sig value is .67 (> .05), hence difference is statistically not significant at 5% level of significance, Awareness is created by Library professional across Age is higher compared to other source of awareness. 46-55 age group is 75% which is highest in this category and lowest is 25-35 age group which is 51%the chi square value is 33.608 and sig value is .00 (< .05), hence difference is statistically significant, Awareness is created by Library professional across Computer Literacy is higher compared to other source of awareness. 'Good' Computer Literacy is 64% which is highest in this category and lowest is 'Expert'. Computer Literacy which is 53% the chi square value is 8.180 and sig value is .23 (>.05), hence difference is statistically not significant. The findings reflect that awareness created by library professional staff plays a vital role in making maximum use of INDEST e-resources.

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