Hyderabad Karnataka Librarians' Association

Journal of Information Management and Educational Technology

Volume 2, Issue 2&3
August & December 2018

Use and Impact of Electronic Information resources in the Academic Universities

Raghavendra Bonal[1] and V.T. Kamble[2]
Gulbarga University, Kalaburagi
[1]bonalrb@gmail.com
[2]drvtk123@gmail.com

ABSTRACT

This study attempts to assess the use and impact of electronic resources provided by the national consortiums like E-Shodhsindhu and CeRA and also other subscribed resources by the universities covering a sample of 838 respondents mainly research scholars and teachers. Results are reported and emphasize the role of librarians to assist the users in seeking information in the digital environment.

Keywords: University Libraries, User Study, Electronic Information Services, National Consortia, E-Shodhsindhu

1.1 INTRODUCTION

The impact of electronic resources characterized on information services by changes in format, contents and method and use/delivery of information products. The new tools used for dissemination of information, shift from physical to virtual services environment and extinction of some conventional information services and emergence of new and innovational web based. Due to financial crunch and the rising costs of journals, many Indian universities and college libraries cannot afford to subscribe to all the required journals and online databases which have led to the significance of National Consortia like E-Shodhsindhu, CeRA and other consortia resources. This has provided a great boon to academic and research community to access electronic information resources on the net and this call for effective ICT infrastructure, awareness and optimization of electronic resources to serve the purpose of national consortia and justify for the huge investments made in making provision for electronic resources. Such a dramatic switch from print collections to digital collections has an impact on library users and users' perceptions of the library.

In this context, the present study intends to assess the Use and Impact of Electronic Information resources in the Academic Universities covering universities in Kalaburagi of Hyderabad Karnataka region.

1.2 OBJECTIVES OF THE STUDY

The objectives of the study are

- To elucidate the use of consortium based e-resources on Research scholars and Teachers in their academic and research activities and
- To determine the impact of ICT based resources for their learning and research

1.3 METHODOLOGY

Survey method using Questionnaire has been adopted for collecting data from respondents who are mainly teachers and research scholars of four universities in Hyderabad Karnataka region. The impact factor and relationship between independent and dependent variables will be determined by adopting suitable statistical tests

1.4 RESULTS AND INFERENCES

Universities of the respondents are taken from Central University of Karnataka, Kadaganchi; Gulbarga University, Kalaburgi; University of Agricultural Sciences, Raichur and Karnataka Veterinary Animal & Fisheries Sciences University, Bidar covering 838 respondents. It may be seen from the table1 that out of 838 respondents, a majority proportion of the respondents, more than three-fifth, (522, 62.3%) is research scholar and a significant proportion of the respondents, less than two-fifth, (316, 37.7%) is teaching faculty

Table No. 1: Designation of the respondents

Designation	Frequency	Percentage
Teaching faculty	316	37.7
Research scholar	522	62.3
Total	838	100.0

Table No. 2: Access of e-resources by designation of the respondents

E-resources source	Access to e-resource	Designation		Total	χ2 value, df, p-value, S/NS
		Teaching faculty	Research scholar		
American Chemical Society	Yes	34	129	163	χ2= 24.460 df= 1 p= 0.000 S
		4.1%	15.4%	19.5%	
	N	282	393	675	
		33.7%	46.9%	80.5%	
American Institute of Physics	Yes	30	96	126	χ2= 12.197 df= 1 p= 0.000 S
		3.6%	11.5%	15.0%	
	No	286	426	712	
		34.1%	50.8%	85.0%	
American Physical Society	Yes	24	136	160	χ2= 43.416 df= 1 p= 0.000 S
		2.9%	16.2%	19.1%	
	No	292	386	678	
		34.8%	46.1%	80.9%	
Annual Reviews	Yes	76	249	325	χ2= 46.375

		9.1%	29.7%	38.8%	df= 1
	No	240	273	513	p= 0.000
		28.6%	32.6%	61.2%	S
Blackwell Publishing	Yes	88	141	229	χ2= 0.069
		10.5%	16.8%	27.3%	df= 1
	No	228	381	609	p= 0.797
		27.2%	45.5%	72.7%	NS
Cambridge University Press	Yes	172	259	431	χ2= 1.826
		20.5%	30.9%	51.4%	df= 1
	No	144	263	407	p= 0.177
		17.2%	31.4%	48.6%	NS
Elsevier	Yes	184	289	473	χ2= 0.657
		22.0%	34.5%	56.4%	df= 1
	No	132	233	365	p= 0.418
		15.8%	27.8%	43.6%	NS
Emerald (LIS collection)	Yes	94	299	393	χ2= 59.917
		11.2%	35.7%	46.9%	df= 1
	No	222	223	445	p= 0.000
		26.5%	26.6%	53.1%	S
Encyclopedia Britannica	Yes	132	242	374	χ2= 1.677
		15.8%	28.9%	44.6%	df= 1
	No	184	280	464	p= 0.195
		22.0%	33.4%	55.4%	NS
Institute of Physics Publishing	Yes	28	127	155	χ2= 31.243
		3.3%	15.2%	18.5%	df= 1
	No	288	395	683	p= 0.000
		34.4%	47.1%	81.5%	S
Institute of Studies in Industrial Development	Yes	40	113	153	χ2= 10.658
		4.8%	13.5%	18.3%	df= 1
	No	276	409	685	p= 0.001
		32.9%	48.8%	81.7%	S
JCCC	Yes	24	82	106	χ2= 11.728
		2.9%	9.8%	12.6%	df= 1
	No	292	440	732	p= 0.001
		34.8%	52.5%	87.4%	S
JSTOR	Yes	156	235	391	χ2= 1.495
		18.6%	28.0%	46.7%	df= 1
	No	160	287	447	p= 0.221
		19.1%	34.2%	53.3%	NS
Nature	Yes	64	202	266	χ2= 30.906
		7.6%	24.1%	31.7%	df= 1

	No	252	320	572	p= 0.000
		30.1%	38.2%	68.3%	S
Oxford University Press	Yes	124	279	403	χ2= 15.917
		14.8%	33.3%	48.1%	df= 1
	No	192	243	435	p= 0.000
		22.9%	29.0%	51.9%	S
Portland Press	Yes	30	102	132	χ2= 14.971
		3.6%	12.2%	15.8%	df= 1
	No	286	420	706	p= 0.000
		34.1%	50.1%	84.2%	S
Project MUSE	Yes	66	84	150	χ2= 3.079
		7.9%	10.0%	17.9%	df= 1
	No	250	438	688	p= 0.079
		29.8%	52.3%	82.1%	NS
Royal Society of Chemistry	Yes	36	201	237	χ2= 71.342
		4.3%	24.0%	28.3%	df= 1
	No	280	321	601	p= 0.000
		33.4%	38.3%	71.7%	S
Science Direct	Yes	154	348	502	χ2= 26.354
		18.4%	41.5%	59.9%	df= 1
	No	162	174	336	p= 0.000
		19.3%	20.8%	40.1%	S
Springer link	Yes	202	386	588	χ2= 9.445
		24.1%	46.1%	70.2%	df= 1
	No	114	136	250	p= 0.002
		13.6%	16.2%	29.8%	S
Taylor & Francis	Yes	190	369	559	χ2= 9.889
		22.7%	44.0%	66.7%	df= 1
	No	126	153	279	p= 0.002
		15.0%	18.3%	33.3%	S

Note: χ2= Chi-square value, df= Degree of freedom, S= Significant, NS= Non-significant.

Table 2 reveals about the access to e-resources among respondents in their respective libraries. It may be seen from the table that out of 838, 163 (19.9%) respondents said yes to have access to e-resource by American Chemical Society in their libraries wherein, 34 (4.1%) are teaching faculty and 129 (15.4%) are research scholars. Whereas, 675 (80.5%) have opined that they don't have access to this e-resource; wherein 282 (33.7%) are teaching faculty and 393 (46.9%) are research scholars.

Out of 838, 126 (15%) respondents said yes to have access to e-resource by American Institute of Physics in their libraries wherein, 30 (3.6%) are teaching faculty and 96 (11.5%) are research scholars. Whereas, 712 (85%) have opined that they don't have access to this e-resource; wherein 286 (34.1%) are teaching faculty and 426 (50.8%) are research scholars.

As far as the e-resource of American Physical Society is concerned; out of 838, 160 (19.1%) respondents said yes to have access to e-resource by American Physical Society in their libraries wherein, 24 (2.9%) are teaching faculty and 136 (16.2%) are research scholars. Whereas, 678 (80.9%) have opined that they don't have access to this e-resource; wherein 292 (34.8%) are teaching faculty and 386 (46.1%) are research scholars.

Out of 838, 325 (38.8%) respondents said yes to have access to e-resource by Annual Reviews in their libraries wherein, 76 (9.1%) are teaching faculty and 249 (29.7%) are research scholars. Whereas, 513 (61.2%) have opined that they don't have access to this e-resource; wherein 240 (28.6%) are teaching faculty and 273 (32.6%) are research scholars.

In respect with the access to e-resource by Blackwell Publishing; out of 838, 229 (27.3%) respondents said yes to have access to e-resource by Blackwell Publishing in their libraries wherein, 88 (10.5%) are teaching faculty and 141 (16.8%) are research scholars. Whereas, 609 (72.7%) have opined that they don't have access to this e-resource; wherein 228 (27.2%) are teaching faculty and 381 (45.5%) are research scholars.

As far as the access to e-resources by Cambridge University Press is concerned; out of 838, 431 (51.4%) respondents said yes to have access to e-resource by Cambridge University Press in their libraries wherein, 172 (20.5%) are teaching faculty and 259 (30.9%) are research scholars. Whereas, 407 (48.6%) have opined that they don't have access to this e-resource; wherein 144 (17.2%) are teaching faculty and 263 (31.4%) are research scholars.

Out of 838, 473 (56.4%) respondents said yes to have access to e-resource by Elsevier in their libraries wherein, 184 (22%) are teaching faculty and 289 (34.5%) are research scholars. Whereas, 365 (43.6%) have opined that they don't have access to this e-resource; wherein 132 (15.8%) are teaching faculty and 233 (27.8%) are research scholars.

Out of 838, 393 (46.9%) respondents said yes to have access to e-resource by Emerald (LIS collection) in their libraries wherein, 94 (11.2%) are teaching faculty and 299 (35.7%) are research scholars. Whereas, 445 (53.1%) have opined that they don't have access to this e-resource; wherein 222 (26.5%) are teaching faculty and 223 (26.6%) are research scholars.

Out of 838, 374 (44.6%) respondents said yes to have access to e-resource by Encyclopedia Britannica in their libraries wherein, 132 (15.8%) are teaching faculty and 242 (28.9%) are research scholars. Whereas, 464 (55.4%) have opined that they don't have access to this e-resource; wherein 184 (22%) are teaching faculty and 280 (33.4%) are research scholars.

However, out of 838, 155 (18.5%) respondents said yes to have access to e-resource by Institute of Physics Publishing in their libraries wherein, 28 (3.3%) are teaching faculty and 127 (15.2%) are research scholars. Whereas, 683 (81.5%) have opined that they don't have access to this e-resource; wherein 288 (34.4%) are teaching faculty and 395 (47.1%) are research scholars.

Out of 838, 153 (18.3%) respondents said yes to have access to e-resource by Institute of Studies in Industrial Development in their libraries wherein, 40 (4.8%) are teaching faculty and 113 (13.5%) are research scholars. Whereas, 685 (81.7%) have opined that they don't have access to this e-resource; wherein 276 (32.9%) are teaching faculty and 409 (48.8%) are research scholars.

As far as the access to e-resources by JCCC is concerned; out of 838, 106 (12.6%) respondents said yes to have access to e-resource by JCCC in their libraries wherein, 24 (2.9%) are teaching faculty and 82 (9.8%) are research scholars. Whereas, 732 (87.4%) have opined that they don't have access to this e-resource; wherein 292 (34.8%) are teaching faculty and 440 (52.2%) are research scholars.

Out of 838, 266 (31.7%) respondents said yes to have access to e-resource by Nature in their libraries wherein, 64 (7.6%) are teaching faculty and 202 (24.1%) are research scholars. Whereas, 572 (68.3%) have opined that they don't have access to this e-resource; wherein 252 (30.1%) are teaching faculty and 320 (38.4%) are research scholars.

Out of 838, 403 (48.1%) respondents said yes to have access to e-resource by Oxford University Press in their libraries wherein, 124 (14.8%) are teaching faculty and 279 (33.3%) are research scholars. Whereas, 435 (51.9%) have opined that they don't have access to this e-resource; wherein 192 (22.9%) are teaching faculty and 243 (29%) are research scholars.

In regard to the access of e-resources by Portland Press; out of 838, 132 (15.8%) respondents said yes to have access to e-resource by Portland Press in their libraries wherein, 30 (3.6%) are teaching faculty and 102 (12.2%) are research scholars. Whereas, 706 (84.2%) have opined that they don't have access to this e-resource; wherein 286 (34.1%) are teaching faculty and 420 (50.1%) are research scholars.

Out of 838, 237 (28.3%) respondents said yes to have access to e-resource by Royal Society of Chemistry in their libraries wherein, 36 (4.3%) are teaching faculty and 201 (24%) are research scholars. Whereas, 601 (71.7%) have opined that they don't have access to this e-resource; wherein 280 (33.4%) are teaching faculty and 321 (38.3%) are research scholars.

Out of 838, 502 (59.9%) respondents said yes to have access to e-resource by Science Direct in their libraries wherein, 154 (18.4%) are teaching faculty and 348 (41.5%) are research scholars. Whereas, 336 (40.1%) have opined that they don't have access to this e-resource; wherein 162 (19.3%) are teaching faculty and 174 (20.8%) are research scholars.

As far as the access to e-resources by Springer link is concerned; it may be seen from the table that out of 838, 588 (70.2%) respondents said yes to have access to e-resource by Springer link in their libraries wherein, 202 (24.1%) are teaching faculty and 386 (46.1%) are research scholars. Whereas, 250 (29.8%) have opined that they don't have access to this e-resource; wherein 114 (13.6%) are teaching faculty and 136 (16.2%) are research scholars.

And, however, out of 838, 559 (66.7%) respondents said yes to have access to e-resource by Taylor & Francis in their libraries wherein, 190 (22.7%) are teaching faculty and 369 (44%) are research scholars. Whereas, 279 (33.3%) have opined that they don't have access to this e-resource; wherein 126 (15%) are teaching faculty and 153 (18.3%) are research scholars.

Chi Square: The $\chi 2$ test is applied to see the association between respondent's access to e-resources in their libraries and their designation i.e. teaching faculty and research scholar. Test indicates that there is a significant association between designation of the respondents and access to e-resources of American Chemical Society (Chi-square value: 24.460, df: 1, p-value: 0.000 < 0.05), American Institute of Physics (Chi-square value: 12.197, df: 1, p-value: 0.000 < 0.05), American Physical Society (Chi-square value: 43.416, df: 1, p-value: 0.000 < 0.05), Annual Reviews (Chi-square value: 46.375, df: 1, p-value: 0.000 < 0.05), Blackwell Publishing (Chi-square value: 0.069, df: 1, p-value: 0.797 > 0.05), Cambridge University Press (Chi-square value: 1.826, df: 1, p-value: 0.177 > 0.05), Elsevier (Chi-square value: 0.657, df: 1, p-value: 0.418 > 0.05), Emerald (LIS collection) (Chi-square value: 59.917, df: 1, p-value: 0.000 < 0.05), Encyclopaedia Britannica (Chi-square value: 1.677, df: 1, p-value: 0.195 > 0.05), Institute of Physics Publishing (Chi-square value: 31.243, df: 1, p-value: 0.000 < 0.05), Institute of Studies in Industrial Development (Chi-square value: 10.658, df: 1, p-value: 0.000 < 0.05), JCCC (Chi-square value: 11.728, df: 1, p-value: 0.001 < 0.05), JSTOR (Chi-square value: 1.495, df: 1, p-value: 0.221 > 0.05), Nature (Chi-square value: 30.906, df: 1, p-value: 0.000 < 0.05), Oxford University Press (Chi-

square value: 15.917, df: 1, p-value: 0.000 < 0.05), Portland Press (Chi-square value: 14.971, df: 1, p-value: 0.000 < 0.05), Project MUSE (Chi-square value: 3.079, df: 1, p-value: 0.079 > 0.05), Royal Society of Chemistry (Chi-square value: 71.342, df: 1, p-value: 0.000 < 0.05), Science Direct (Chi-square value: 26.354, df: 1, p-value: 0.000 < 0.05), Springer link (Chi-square value: 9.445, df: 1, p-value: 0.002 < 0.05), and Taylor & Francis (Chi-square value: 9.889, df: 1, p-value: 0.002 < 0.05), respectively. This association is not found for Blackwell Publishing, Cambridge University Press, Elsevier, Encyclopaedia Britannica, JSTOR and Project MUSE.

Hypothesis: There is a no significant difference in access to e-resources among respondents.

Independent sample t-test is conducted to find the difference mentioned in above hypothesis (Table No. 4.88). The test shows that there is a significant difference among the designation of the respondents and respondents access to the e-resources by American Chemical Society (t-value: 5.012, df: 836, p= 0.000 < 0.05), American institute of physics (t-value: 3.514, df: 836, p= 0.000 < 0.05), American physical society (t-value: 6.759, df: 836, p= 0.000 < 0.05), Annual reviews (t-value: 6.998, df: 836, p= 0.000 < 0.05), Blackwell publishing (t-value: -0.263, df: 836, p= 0.793 > 0.05), Cambridge university press (t-value: -1.351, df: 836, p= 0.177 > 0.05), Elsevier (t-value: -0.810, df: 836, p= 0.418 > 0.05), Emerald (LIS collection) (t-value: 8.024, df: 836, p= 0.000 < 0.05), Encyclopaedia Britannica (t-value: 1.295, df: 836, p= 0.196 > 0.05), Institute of physics publishing (t-value: 5.690, df: 836, p= 0.000 < 0.05), Institute of studies in industrial development (t-value: 3.282, df: 836, p= 0.001 < 0.05), JCCC (t-value: 3.445, df: 836, p= 0.001 < 0.05), JSTOR (t-value: -1.222, df: 836, p= 0.222 > 0.05), Nature (t-value: 5.658, df: 836, p= 0.000 < 0.05), Oxford university press (t-value: 4.023, df: 836, p= 0.000 < 0.05), Portland press (t-value: 3.900, df: 836, p= 0.000 < 0.05), Project muse (t-value: -1.756, df: 836, p= 0.080 > 0.05), Royal society of chemistry (t-value: 8.820, df: 836, p= 0.000 < 0.05), Science direct (t-value: 5.210, df: 836, p= 0.000 < 0.05), Springer link (t-value: 3.087, df: 836, p= 0.002 < 0.05), and Taylor & Francis (t-value: 3.160, df: 836, p= 0.002 < 0.05) respectively. Therefore, the study hypothesis is rejected and an alternative hypothesis is formed that there is a significant difference in respondent's access to e-resources in their respective libraries and their designation. The difference is not found in the access with respect to Blackwell publishing, Cambridge university press, Elsevier, Encyclopaedia Britannica, JSTOR and Project muse.

Table No. 3: Comparison in access of e-resources among respondents (Through independent sample t-test)

Level of acquaintance with		Designation	N	Mean	Std. Deviation	Std error mean
1	American chemical society	Teaching Faculty	316	1.89	.310	.017
		Research Scholars	522	1.75	.432	.019
2	American institute of physics	Teaching Faculty	316	1.91	.294	.017
		Research Scholars	522	1.82	.388	.017
3	American physical society	Teaching Faculty	316	1.92	.265	.015
		Research Scholars	522	1.74	.439	.019
4	Annual reviews	Teaching Faculty	316	1.76	.428	.024
		Research Scholars	522	1.52	.500	.022
5		Teaching Faculty	316	1.72	.449	.025

	Blackwell publishing	Research Scholars	522	1.73	.444	.019
6	Cambridge university press	Teaching Faculty	316	1.46	.499	.028
		Research Scholars	522	1.50	.500	.022
7	Elsevier	Teaching Faculty	316	1.42	.494	.028
		Research Scholars	522	1.45	.498	.022
8	Emerald (LIS collection)	Teaching Faculty	316	1.70	.458	.026
		Research Scholars	522	1.43	.495	.022
9	Encyclopaedia Britannica	Teaching Faculty	316	1.58	.494	.028
		Research Scholars	522	1.54	.499	.022
10	Institute of physics publishing	Teaching Faculty	316	1.91	.285	.016
		Research Scholars	522	1.76	.429	.019
11	Institute of studies in industrial devel.	Teaching Faculty	316	1.87	.333	.019
		Research Scholars	522	1.78	.412	.018
12	JCCC	Teaching Faculty	316	1.92	.265	.015
		Research Scholars	522	1.84	.364	.016
13	JSTOR	Teaching Faculty	316	1.51	.501	.028
		Research Scholars	522	1.55	.498	.022
14	Nature	Teaching Faculty	316	1.80	.403	.023
		Research Scholars	522	1.61	.488	.021
15	Oxford university press	Teaching Faculty	316	1.61	.489	.028
		Research Scholars	522	1.47	.499	.022
16	Portland press	Teaching Faculty	316	1.91	.294	.017
		Research Scholars	522	1.80	.397	.017
17	Project muse	Teaching Faculty	316	1.79	.407	.023
		Research Scholars	522	1.84	.368	.016
18	Royal society of chemistry	Teaching Faculty	316	1.89	.318	.018
		Research Scholars	522	1.61	.487	.021
19	Science direct	Teaching Faculty	316	1.51	.501	.028
		Research Scholars	522	1.33	.472	.021
20	Springer link	Teaching Faculty	316	1.36	.481	.027
		Research Scholars	522	1.26	.439	.019
21	Taylor & Francis	Teaching Faculty	316	1.40	.490	.028
		Research Scholars	522	1.29	.456	.020

Independent Samples Test

		Levine's test for Equality of variances		t-test for Equality of Means						
		F	Sig.	t.	df.	Sig (2-tailed	Mean difference	Std. Error difference	95% confidence interval of the difference	
									Lower	Upper
1	EVA	122.583	.000	5.014	836	.000	.140	.028	.085	.000
	EVnA			5.423	811.777	.000	.140	.026	.089	.000
2	EVA	55.155	.000	3.514	836	.000	.089	.025	.039	.000
	EVnA			3.757	795.339	.000	.089	.024	.042	.000
3	EVA	253.052	.000	6.759	836	.000	.185	.027	.131	.000
	EVnA			7.583	835.998	.000	.185	.024	.137	.000
4	EVA	185.682	.000	6.998	836	.000	.237	.034	.170	.000
	EVnA			7.269	743.493	.000	.237	.033	.173	.000
5	EVA	.274	.601	-.263	836	.793	-.008	.032	-.071	.793
	EVnA			-.262	659.312	.793	-.008	.032	-.071	.793
6	EVA	4.010	.046	-1.351	836	.177	-.048	.036	-.118	.177
	EVnA			-1.352	666.279	.177	-.048	.036	-.118	.177
7	EVA	2.797	.095	-.810	836	.418	-.029	.035	-.098	.418
	EVnA			-.811	668.375	.418	-.029	.035	-.098	.418
8	EVA	62.013	.000	8.024	836	.000	.275	.034	.208	.000
	EVnA			8.179	705.193	.000	.275	.034	.209	.000
9	EVA	7.047	.008	1.295	836	.196	.046	.035	-.024	.196
	EVnA			1.298	670.006	.195	.046	.035	-.024	.115
10	EVA	165.001	.000	5.690	836	.000	.155	.027	.101	.208
	EVnA			6.264	829.266	.000	.155	.025	.106	.203
11	EVA	47.868	.000	3.282	836	.001	.090	.027	.036	.144
	EVnA			3.456	769.891	.001	.090	.026	.039	.141
12	EVA	52.600	.000	3.445	836	.001	.081	.024	.035	.127
	EVnA			3.715	807.921	.000	.081	.022	.038	.124
13	EVA	3.029	.082	-1.222	836	.222	-.043	.036	-.113	.026
	EVnA			-1.221	661.692	.223	-.043	.036	-.113	.026
14	EVA	154.687	.000	5.658	836	.000	.184	.033	.120	.248
	EVnA			5.928	760.342	.000	.184	.031	.123	.246
15	EVA	17.295	.000	4.023	836	.000	.142	.035	.073	.211
	EVnA			4.044	675.347	.000	.142	.035	.073	.211
16	EVA	69.306	.000	3.900	836	.000	.100	.026	.050	.151
	EVnA			4.191	803.168	.000	.100	.024	.053	.148
17	EVA	11.989	.001	-1.756	836	.080	-.048	.027	-.102	.006

	EVnA			-1.712	612.719	.087	-.048	.028	-.103	.007
18	EVA	475.391	.000	8.820	836	.000	.271	.031	.211	.331
	EVnA			9.740	831.224	.000	.271	.028	.216	.326
19	EVA	38.800	.000	5.210	836	.000	.179	.034	.112	.247
	EVnA			5.135	634.033	.000	.179	.035	.111	.248
20	EVA	33.018	.000	3.087	836	.002	.100	.032	.037	.164
	EVnA			3.019	618.216	.003	.100	.033	.035	.165
21	EVA	32.250	.000	3.160	836	.002	.106	.033	.040	.171
	EVnA			3.103	626.732	.002	.106	.034	.039	.172

Table No. 4: Use of electronic information resources and services over last five years

Use of e-resources	Designation		Total
	Teaching faculty	Research scholar	
Greatly increased	198	252	450
	23.6%	30.1%	53.7%
Increased	94	240	334
	11.2%	28.6%	39.9%
Reduced	24	30	54
	2.9%	3.6%	6.4%
Total	316	522	838
	37.7%	62.3%	100.0%

Chi-square value: 21.635; df[1]: 2; Level of sig: 0.000

The above table depicts about use of electronic information resources and services over last five years among respondents; it may be seen from above table that out of 838, 450 (53.7%) respondents said their use of electronic information resources and services have greatly increased wherein, 198 (23.6%) are teaching faculty and 252 (30.1%) are research scholars. Whereas, 334 (39.9%) have opined that their use of it have increased; wherein 94 (11.2%) are teaching faculty and 240 (28.6%) are research scholars. And out of 838 54 (6.4%) respondents opined that their use of electronic information resources and services over last five years have been reduced wherein 24 (2.9%) are teaching faculty and 30 (3.6%) are research scholars.

Chi Square: The $\chi 2$ test is applied to see the association between respondent's use of electronic information resources and services over last five years and their designation i.e. teaching faculty and research scholar. Test indicates that there is a significant association between designation of the respondent's designation and their use of electronic information resources and services over last five years (Chi-square value: 21.635, df: 2, p-value: 0.000 < 0.05).

1.5 CONCLUSION

The value of libraries for the individual and for society has long been seen as self evident. However, in times when users are becoming increasingly independent in their information seeking, when information seems to be free on the web even where libraries have paid for access, and physical visits to libraries may decrease, the benefits gained from funding libraries are questioned not only by funding institutions but also by the public. The national consortia

resources provided by the INFLIBNET Centre of ICAR and others needs to be ensured its proper usage by the academicians for which role of libraries is significant.

REFERENCES

Oyedun, G.U. (2007). Internet use in the library of Federal University of Technology, Minna: A case study. *Gateway Library Journal*, 10(1), 23-32.

Popoola, S.O., & Haliso, Y. (2009).Use of library information resources and services as predator of teaching effectiveness of social scientists in Nigerian universities. *AJLAIS 19*(1): 65-77.

Preeti Mahajan (2005). Academic libraries in India: a present scenario. *Library Philosophy and Practice*. Falls 8 (1).

Rana, H.K. (2009): Impact of Information and Communication Technology on Academic Libraries in Punjab. Available at http/www.goarticles.com/cgi-bin/showa/cgi?=1239032 (Accessed on 24/09/2013)

Meadow, C. T. (1988). Back to the future: Making and interpreting the database industry timeline. *Database, 11(5),* 1416.

Potter, W. G. (1997). Recent trends in statewide academic library consortia. *Library Trends, 45(3),*416-434.

Shreeves, E. (1997). Is there a future for cooperative collection development in the digital age? *Library Trends, 45(3),*373-390.

Strauch, K. (1992). Don't get mired in it; make some bricks. *Journal of Academic Librarianship,* 18(1), 12-13.