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Usage of Electronic Resources in the University Libraries of Kerala: A User Point of View

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ABSTRACT *The study also highlights the preferences and importance of online resources among the teachers and research scholars. The Internet and the Web are constantly influencing the development of new modes of scholarly communication; their potential for delivering 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 been drastically reduced. The Internet can be used for efficient retrieval and meeting information needs.*

KEYWORDS : Internet, Information Literacy, Electronic Resources, Electronic Databases, Standard Deviation, university libraries

Introduction

All types of Libraries are implementation various digital collections, although most libraries will continue to offer both print and digital collections. Libraries are preferred digital collections for many reasons, such that, access can be from the user's home, office, or dormitory whether or not the physical library is open; the library can get usage statistics that are not available for print collections; and digital collections save space and are relatively easy to maintain. Many researchers have attempted to predict or measure that impact through surveys, transaction log analysis, and other research techniques. The opinion literature outnumbers the research literature, and it may be a challenge to distinguish fact from opinion.

Previous studies

Borrego, et al.(2007) observes that there have been many studies of users of electronic resources in the professional literature in the last few years. In a recent exhaustive review of the literature on the subject, Tenopir (2003) analyzed the results of over 200 studies of the use of electronic resources in libraries published between 1995 and 2003. The main conclusion of this review is that electronic resources have been rapidly adopted in academic spheres, though the behaviour varies according to the discipline. In a significant study Jamali, Nicholas, and Huntington (2005) presented the conclusions of several studies that used log analysis to study the use and users of electronic journals. These papers focused the formats preferred by the end users where it was documented that the users prefer the PDF rather than HTML format.

Sampling and Delimitation of the Study

The researcher has been distributed each 200 questionnaires among the selected universities on random sampling and as per the requirement of the objectives of the present study. The scholar requests the university library users (faculties and Research Scholars) to fill the questionnaire as per their convenience and returned the questionnaire to the investigator as early as possible. The filled up questionnaire has been collected from the respondents for the data analysis and interpretation. Total Sample is 704. The random sampling techniques was adapted to selected respondents has been tabulated and in the present report results have been shown in the tabular format.

Kerala is located on the eastern coast of southern India and is home to a number of universities. This state also has a well-developed educational system that tends across basic, collegiate as well as higher levels of education. It is served by research institutes as well as academic centers of excellence. The universities of Kerala are the storehouses of knowledge and promote academic brilliance and artistic brilliance alike. The researcher has taken only multidisciplinary types of universities (University of Kerala; University of Calicut; Mahatma Gandhi University; Kannur University and Cochin University of Science and Technology) for this study. There are five State Universities in Kerala which are accredited by National Assessment and Accreditation Council (NAAC) is selected for the study on the basis of convenience.

- The study is restricted to University teaching staffs and Research scholars of social Science and Science faculties only.
- The study is narrowed to Kerala University Libraries only. The result arrived at from the study may or may not be applicable to other Universities.
- The survey method which adopted for collecting the data in this study has its own limitations. Hence, the generalization of the findings of the study is subject to the above condition.
- The study is restricted between the data collection period is the academic year of 2012 to 2013.

Objectives of the Study

The Primary objectives of the study are to identify the usage of electronic resources amongst the faculty members and researchers scholars of selected universities of Kerala state Library users.

The specific objectives of the present investigations are:

- To identify the age groups and gender status of Library users for E-Resources ;
- To identify availability of different types of electronic resources in selected university libraries;
- To evaluate the frequency, time spent, purpose and utilization of E- Resources by the library users.

Data Analysis and Interpretation/Discussion

The data collected were carefully analyzed and processed. The analysis of collected data has been tabulated and in the present report results have been shown in the tabular format.

Table 1: Respondents of selected universities from Tamilnadu

S.No	Selected Universities	No of respondents	percentage
1	University of Kerala, Trivandrum	146	20.74
2	University of Calicut, Malappuram	143	20.31
3	Kannur University, Kannur	141	20.03
4	Cochin University of Sci. & Tech., Ernakulam	138	19.60
5	Mahatma Gandhi University, Kottayam	136	19.32
	Total	704	100

The above table 1 reveals that the number respondents from the various universities, University of Kerala has more number of respondents of 20.74 percent; University of Calicut has 20.31 percent of respondents; Kannur University has 20.03 percent of respondents; Cochin university of Science & Technology has 19.6 percents of respondents and Mahat-

ma Gandhi University having less number of respondents (19.32 %).

Age and gender wise analysis

The age factor is importantly used for find out the information seekers thrust. Four types of age groups are segregated; such that below 35 years, between 36 - 45 years, between 46 - 55 years and above 56 years. This analysis is helps to identify which age group respondents were having information requirement more. The table value reveals male respondents are more than female respondents. Totally 3698 respondents were responded this questionnaire. Out of 3698, 2228 (60.24 %) of male respondents and 1470 (39.76 %) of female were responding the questionnaire and given back filled questionnaire. 25.82 percents of respondents were below 35 age group users', i.e., one fourth of respondents were youth. 27.99 percents of users were been the age group of between 36 - 45 years. 25.88 percents of respondents were been the age group of between 46 - 55 years and remaining 20.31 percents of users were belongs to the age group of above 56 years.

Table 2: Distribution of respondents based on their age and gender

S. No	Particulars	Male		Female		Total				
		(n=375)		(n=329)		(n=704)				
		No.	%	No.	%	No.	%	Mean	SD	CV
1	< 35 Years	198	52.8	186	56.53	384	54.55	192	8.49	4.42
2	36 - 45 Years	96	25.6	87	26.44	183	25.99	91.5	6.36	6.95
3	46 – 55 years	52	13.87	36	10.94	88	12.50	44	11.31	25.7
4	> 56 years	29	7.73	20	6.08	49	6.96	24.5	6.36	25.95
Total		375	53.3	329	46.7	704	100	352	23	6.53
Mean		93.75		82.25		176				
SD		74.85		64.81		149.65				
CV		79.84		78.79		85.03				

53.3 percent of male and 46.7 percent of female respondents in the sample data. the below 35 age group of respondents were high, followed by the 36 - 45 years age group (25.99 %) respondents, 46 - 55 year (12.5 %) age grouped, and above 56 years (6.96 %) age groups respondents respectively. Gender wise, male respondents' mean value is 93.75, SD value is 74.85 and its CV value is 79.84. Female respondents' mean value is 82.25, SD value is 64.81 and its CV value is 79.79. Overall age groups mean value is 176, SD value is 149.65 and CV value is 85.03. Below 35 age group respondents' means value is 192, SD value 8.49 and its CV value is 4.42; between 36 - 45 years age group users mean value is 91.5, SD value is 6.36 and its CV value is 6.95; between 46 - 55 years age group users mean value is 44, its SD value is 11.31 and its CV value is 25.7 and above 56 years age group users mean value is 24.5, its SD value is 6.36 and its CV value is 25.95. It could be seen from data that all the respondents are young; the majority of age group below 35. The results shows the young generation has more interested to improved their research activities for getting current information and further academic developments for themselves through internet.

Respondents' dependency level on their library

Information need is a basic element of information seeking process. The researcher has taken the three categories of usage level based on their university library for their information required, such that; (i). Totally dependent on library, (ii). Dependent to some extent level and (iii). Not dependent on library. The purpose of seeking information or the information need of the respondents studied has been presented in Table 3.

Table 3 has reveals that the gender wise distribution of respondent's dependency on their university library. more than half of the respondents (50.8 %) were totally dependent on their university library. 32.4 percents of respondents were dependent to some extent in their library usage and remaining 16.8 percents of respondents were not dependent their library. Among the total number of 2228 male respondents, 52.2 percents of totally dependent on university library, 32.7 percents of respondents were dependent to some extent and 15.1 percents of respondents were not dependent on university library for their usages. Among the total number of 1470 female respondents, 48.6 percents are totally dependent on university library, 32 percents respondents were dependent tot some extent level and 19.3 percents of respondents are not dependent on university library for their usage level.

Table 3: Respondents' dependency level on their University Library

S. No	Dependency level	Male		Female		Total (n=704)				
		(n=375)		(n=329)						
		No.	%	No.	%	No.	%	Mean	SD	CV
1	Totally dependent	201	53.60	198	60.18	399	56.68	199.5	2.12	1.06
2	Dependent to some extent	157	41.87	115	34.95	272	38.64	136	29.70	21.84
3	Not dependent	17	4.53	16	4.86	33	4.69	16.5	0.71	4.29
Total		375	53.3	329	46.7	704	100	352	32.53	9.24
Mean		125		109.66		234.67				
SD		96.08		91.11		185.83				
CV		76.87		83.09		79.19				

ANOVA: Two-Factor without Replication

Source of Variation	SS	DF	MS	F	P-value	F Critical
Rows	92091.56	2	46045.78	15.29026	0.01338	6.944272
Columns	27886.89	2	13943.44	4.630152	0.090994	6.944272
Error	12045.78	4	3011.444			
Total	132024.2	8				

The F value is greater than the table value at row wise, so there is significant difference between the dependency levels of their university library. F value is less than the table value of column wise, so there is no significant difference between the gender wise respondents' to dependency on library.

Out of 704 respondents, 375 (53.3 %) male and 329 (46.7%) female respondents were identified. Overall the respondents, more than half of the respondents (56.68 %) were totally dependent on their university library. 38.64 percentage of respondents were dependent to some extent in their library usage and remaining 4.69 percentage of respondents were not dependent their library.

Among the total number of 375 male respondents, 53.60 percentages of respondents were totally dependent on university library, 41.87 percentages of respondents were dependent to some extent and 4.53 percentages of respondents were not dependent on university library for their usages. Among the total number of 329 female respondents, 60.18 percentage are totally dependent on university library, 34.95 percentage respondents were dependent to some extent level and 4.86 percentage of respondents are not dependent on university library for their usage level. It could be found that the male respondents were totally depending and dependent to some extent on their university library at high level. Not dependent on their university library for their usage to the female respondents were high.

Gender wise summarised distribution of respondents' dependency on university library, totally dependent on their library mean value is 199.5 and standard deviation value is 2.12 and CV value is 1.06. The selected users' dependent to some extent their university level mean value is 136 and standard deviation is 29.70 and CV value is 21.84. Respondents are mentioned they are not dependent on their university mean value is 16.5 and standard deviation value is 0.71 and CV value is 4.29. Overall respondents mean value is 352 and their standard deviation value is 32.53 and CV value is 9.24. Male respondents' dependency level of their university library mean value is 125, SD value is 96.08 and its CV is 76.87. Female respondents' mean value is 109.66, SD value is 91.11 and its CV is 83.09. Over all respondents dependency level of library mean

value is 234.67, SD value is 185.83 and its CV is 79.19.

Usage of electronic sources

Table 4 showed that the gender wise distribution of respondent's based on information required of E - services provided by their university library. Out of 704 respondents, 619 (87.93 %) of respondents were preferred to use OPAC, 483 (68.61 %) of respondents were preferred to bibliographic data, 661(93.89 %) of respondents were used online searching, 423 (60.09 %) of respondents were used to get full text sources, 345 (49.01 %) of respondents were given preference for getting electronic books, 587 (83.38 %) of respondents were access frequently electronic journals, 268 (38.07 %) of respondents were preferred for access subject gateways, 497 (70.60 %) of respondents were having interesting to access online database, 183 (25.99 %) of respondents were wish to access online shopping, 678 (96.31 %) of respondents were desired to get in social network, 183 (25.99 %) of respondents were wish to get the information through alerting service, 165 (23.44 %) of respondents were wish to get online subscription, 149 (21.16 %) of them are tried to improved their software knowledge, 167 (23.72 %) of male respondents were has interest to get the knowledge of web congregation, 190 (26.99 %) of them are has keen interest of network training, 384 (54.55 %) of male respondents were has interesting to create their own web page, 366 (51.99 %) of respondents were having interest to make own or common data base creation, 388 (55.11 %) of respondents were access electronic archives for their file security, 262 (37.22 %) of respondents were have prefer for request article through inter library loan for document delivery service, 345 (49.01 %) of respondents were having interest for accessing open source software for their related fields, 139 (19.74 %) of respondents were having interest for learn online tutorials for various course. Only 26.85 % of respondents were mentioned access their library for other purpose also. Over all electronic services (Male and female respondents') mean value is 348.68, Standard Deviation value is 176.57 and its CV value is 50.64. It could be found from the above analysis is, most of respondents were preferred for the social networks, online search E journals and OPAC services.

Out of 329 female respondents, 298 (90.58 %) of respondents were preferred to use OPAC, 236 (71.73 %) of respondents were preferred to bibliographic data, 324 (98.48 %) of respondents were used online searching, 210 (63.83 %) of respondents were used to get full text sources, 179 (54.41 %) of respondents were given preference for getting electronic books, 288 (87.54 %) of respondents were access frequently electronic journals, 139 (42.25 %) of respondents were preferred for access subject gateways, 244 (74.16 %) of respondents were having interesting to access online database, 86 (26.14 %) of respondents were wish to access online shopping, 320 (97.26 %) of respondents were desired to get in social network, 96 (29.17 %) of respondents were wish to get the information through alerting service, 77 (23.40 %) of respondents were wish to get online subscription, 70 (21.28 %) of them are tried to improved their software knowledge, 85 (25.84 %) of male respondents were has interest to get the knowledge of web congregation, 92 (27.96 %) of them are has keen interest of network training, 187 (56.84 %) of male respondents were has interesting to create their own web page, 178 (54.10 %) of respondents were having interest to make own or common data base creation, 183 (55.62 %) of respondents were access electronic archives for their file security, 126 (38.3 %) of respondents were have prefer for request article through inter library loan for document delivery service, 168 (51.06 %) of respondents were having interest for accessing open source software for their related fields, 71 (21.58 %) of respondents were having interest for learn online tutorials for various course. Only 29.79 % of respondents were mentioned access their library for other purpose also. Female respondents mean value is 174.24 and its Standard deviation value is 85.17 and CV value is 48.88.

Table 4: Distribution of respondent's information required of E - services provided by their university libraries

S. No	Particulars	Male		Female		Total				
		(n=375)		(n=329)		(n=704)				
		No.	%	No.	%	No.	%	Mean	SD	CV
1	OPAC	321	85.6	298	90.58	619	87.93	309.5	16.26	5.25
2	Bibliographic data	247	65.87	236	71.73	483	68.61	241.5	7.78	3.22
3	Online searching	337	89.87	324	98.48	661	93.89	330.5	9.19	2.78
4	Full text sources	213	56.80	210	63.83	423	60.09	211.5	2.12	1.00
5	E – Books	166	44.27	179	54.41	345	49.01	172.5	9.19	5.33
6	E - Journals	299	79.73	288	87.54	587	83.38	293.5	7.78	2.65
7	Subject Gateways	129	34.40	139	42.25	268	38.07	134	7.07	5.28
8	Online database	253	67.47	244	74.16	497	70.60	248.5	6.36	2.56
9	Online shopping	97	25.87	86	26.14	183	25.99	91.5	7.78	8.50
10	Social network	358	95.47	320	97.26	678	96.31	339	26.87	7.93
11	Alerting service	87	23.20	96	29.17	183	25.99	91.5	7.77	8.50
12	Online subscription	88	23.47	77	23.40	165	23.44	82.5	7.78	9.43
13	SW development	79	21.07	70	21.28	149	21.16	74.5	6.36	8.54
14	Web congregation	82	21.87	85	25.84	167	23.72	83.5	2.12	2.54
15	Network training	98	26.13	92	27.96	190	26.99	95	4.24	4.47
16	Web page creation	197	52.53	187	56.84	384	54.55	192	7.07	3.68
17	Database creation	188	50.13	178	54.10	366	51.99	183	7.07	3.86
18	Electronic archives	205	54.67	183	55.62	388	55.11	194	15.56	8.02
19	Document delivery service	136	36.27	126	38.30	262	37.22	131	7.07	5.40
20	Open source software	177	47.20	168	51.06	345	49.01	172.5	6.36	3.69
21	Online Tutorial	68	18.13	71	21.58	139	19.74	69.5	2.12	3.05
22	Others	91	24.27	98	29.79	189	26.85	94.5	4.95	5.24
Mean		178		174.24		348.68				
SD		92.04		85.17		176.57				
CV		51.71		48.88		50.64				

Frequency of Accessing Library

The usage of library could be measured by various ways. One such way, which may give an inspiration of the use of the e-resources, is that of finding the frequency of the visits of users to the library for accessing e-resource. For the present study, the use pattern of e-resource includes frequency of visit to the library, time spent on information gathering, purpose of visit to library and sources of information used. The researcher has six categories (Daily, Alternative day, Twice in a week, Thrice in a week, once in a week and once in a month). This study goes to find out the frequency of accessing library by the selected respondents.

Table 5. revealed that the gender wise frequency of visit to library for their academic purpose. Out of 704 respondents, 464 (65.91 %) of respondents were daily visit their university library for usage of electronic resources. 98 (13.92 %) of respondents were alternative day of frequency visit their university library for accessing electronic resources. 60 (8.52 %) of respondents were twice in a week of frequency visit their university library for accessing electronic resources. 44 (6.25 %) of respondents were thrice in a week of frequency visit their university library for accessing electronic resources. 28 (3.98 %) of respondents were once in a week of frequency visit their university library for accessing electronic resources. 10 (1.42 %) of respondents were once in a month of frequency visit their university library for accessing electronic resources. Overall gender respondents' frequency visit their library mean value is 117.33, SD value is 172.46 and its CV value is 146.99. From this interpretation inferred that the more number of respondents were frequent visit their library at daily. Least numbers of respondents were used their library occasionally (once in a month).

Among 375 male respondents, 236 (62.93 %) of respondents were daily visit their university library for usage of electronic resources. 65 (17.33 %) of respondents were alternative day of frequency visit their university library for accessing electronic resources. 31 (8.27 %) of respondents were twice in a week of frequency visit their university library for accessing electronic resources. 23 (6.13 %) of respondents were thrice in a week of frequency visit their university library for accessing electronic resources. 16 (4.27 %) of respondents were once in a week of frequency visit their university library for accessing electronic resources. 4 (1.07 %) of respondents were once in a month of frequency visit their university library for accessing electronic resources. Overall male respondents' frequency visit their library mean value is 62.5, SD value is 87.46 and its CV value is 139.94. From this interpretation inferred that the more number of respondents were frequent visit their library at daily. Least numbers of respondents were used their library occasionally (once in a month).

Among 329 female respondents, 228 (69.3 %) of respondents were daily visit their university library for usage of electronic resources. 33 (10.03 %) of respondents were alternative day of frequency visit their university library for accessing electronic resources. 29 (8.81 %) of respondents were twice in a week of frequency visit their university library for accessing electronic resources. 21 (6.38 %) of respondents were thrice in a week of frequency visit their university library for accessing electronic resources. 12 (3.65 %) of respondents were once in a week of frequency visit their university library for accessing electronic resources. 6 (1.82 %) of respondents were once in a month of frequency visit their university library for accessing electronic resources. Overall male respondents' frequency visit their library mean value is 54.83, SD value is 85.43 and its CV value is 155.8.

Table 5: Gender wise distribution of Frequency of accessing Library

S. No	Time spent	Male		Female		Total				
		(n=375)		(n=329)		(n=704)				
		No.	%	No.	%	No.	%	Mean	SD	CV
1	Daily	236	62.93	228	69.30	464	65.91	232	5.66	2.44
2	Alternative day	65	17.33	33	10.03	98	13.92	49	22.63	46.18
3	Twice in a week	31	8.27	29	8.81	60	8.52	30	1.41	4.71
4	Thrice in a week	23	6.13	21	6.38	44	6.25	22	1.41	6.43
5	Once in a week	16	4.27	12	3.65	28	3.98	14	2.83	20.2
6	Once in month	4	1.07	6	1.82	10	1.42	5	1.41	28.28
Total		375 (100)		329 (100)		704 (100)				
Mean		62.5		54.83		117.33				
SD		87.46		85.43		172.46				
CV		139.94		155.8		146.99				

ANOVA: Two-Factor without Replication

Source of Variation	SS	DF	MS	F	P-value	F crit
Rows	74358.67	5	14871.73	194.8262	1.010	5.050329
Columns	176.3333	1	176.3333	2.3100	0.189	6.607891
Error	381.6667	5	76.3333			
Total	74916.67	11				

The F value is greater than the tabulated value of rows wise, so there is significant between the time span for spent their university library. The F value is less than the tabulated value of rows wise, so there is no significant between the gender wise respondents were time spent their university library. This result showed that average usage of respondents based in framed criteria.

Conclusion

There are several reasons for using electronic resources by the faculty members and research scholars are given below: Internet resources can be accessed from different location; Internet resources are very easy to access; Internet can be accessed to full text from remote place; Internet resources are very much user-friendly interface; Through the Internet library can able to sharing their resources; User can easily enter other virtual library, which is in different place; and It helps the library to meet the changing needs and expectations of the library users; and the effective application of ICTs helps libraries in performing their housekeeping operations and services efficiently. In library computer technology and electronic resources are likely to become increasingly popular amongst the users, as these resources bring about qualitative

improvement in library functioning and services and make information access easy, accurate and comprehensive.

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