

USE OF E-COLLECTION BY THE FACULTY MEMBERS OF MYSORE REGION ENGINEERING COLLEGE LIBRARIES: A STUDY

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Abstracts

This paper deals with the use of e-collection in the Mysore Region Engineering College Library. This paper deals with the use of library e-collection which includes users profile; purpose of visiting; use of e-collection; use of e- database; of all the type of the use of e-collection - 'E-theses and dissertation' has the highest mean value with 3.25 and SD being 1.24; the Chi Square values reveal that ($\chi^2 = 72.434$, $P > .000$) there is a significant difference among the respondents and the biggest choice of respondents is 'sometimes' scoring, 215(28.3%); the variable e-database 'IEEE (The institute of electrical and electronics engineers)' has the highest mean value with 3.88 and SD being 1.28; the results of Chi Square test reveal that ($\chi^2 = 366.776$, $P > .000$) the differences among the respondents are highly significant and the biggest choice of respondents in the use of 'IEEE' is 'strongly agree' scoring, 319(42.0%).

Key Terms: Purpose of Visiting library; Use of e-collection; Faculty Members; Mysore Region; Engineering Colleges.

1. Introduction

The present study focuses on use of e-collection in the Mysore region engineering college libraries. The Mysore region engineering college libraries (MRECL) need to provide materials in the appropriate media to support formal and informal learning processes. It should also help the user to make use of these learning resources effectively as well as providing facilities that enable people to study. The engineering college library has both print and non-print collections to meet the information requirement of all categories of users. An attempt is made here to know the use of engineering college users towards engineering college library e-collection. Use of e-collection is most useful in the Mysore region engineering college libraries.

2. Literature Review

Collection development is the basic activity of any library. Same is the case with the engineering college libraries. There are quite a few references on this topic which are presented here systematically.

Visser & Moeller (2002) opinioned CD-ROMs of rare books are becoming increasingly prevalent and explore the kind of information available on CD-ROM and compares. WorldCat showing the kinds of institutions purchasing CD-ROMs of rare books and whether they own the CD-ROM in addition to other formats. Positive trend toward making rare books accessible to a wider audience may be developing. As more rare books become available on CD-ROM, this study should be duplicated to determine the full impact of rare books published on CD-ROMs. Bronshteyn (2007) encourages reference librarians to utilize e-books to their advantage at the reference desk, for point of need and collection development purposes. Overview of e-book utility at the reference desk and strategies for dealing with their shortcomings are provided. The collection development and collection management of e-books are also discussed. The study of first-year college students provides a current projection of usage; eBooks are well-utilized by patrons in academic libraries and offer several conveniences. Reference librarians may find this information helpful in serving their on- and off-campus users. The study outlines "talking points" for the utilization, promotion, and collection development of e-books. Diez & Bravo (2009) aims to explore the current presence of e-books in the collections of Spanish academic libraries, from the viewpoint of the contents on offer. Exploration of the library web sites was undertaken in order to gauge the level of presence of packages that distribute electronic books. Librarians have the responsibility to aid their users in understanding the growing complexity of the information market and the increasing range of resources available for research. The research is a necessary approach to the integration of collections of e-books into Spanish public universities. Encouraging the use of monographs in electronic format takes on great importance when it is borne in mind that e-books will have a crucial role in the new model for education advocated by the European Higher Education Area (EHEA). Jackson and Holley (2011) during the fall of 2008, the librarians at Rodgers Library and the Associate Dean for collections examined circulation statistics for print materials published in the past five years. At the same time, they were examining use of electronic resources in science and engineering. The difference in use was staggering. While the use of electronic resources continues to rise; the circulation of print materials falls; statistics showed that only one third of the print materials ordered over the past five years have circulated; many only one time; based on this information. While e-books will constitute a possible substitute for print books, they know that the two formats are complementary and will continue to maintain a balance in their collection. E-book acquisitions continue to evolve as new options become available.

Mansur (2012) describes the libraries are the repositories of the intellect of ages stored in the form of recorded information for use of present and future generations to come. Digital technology has made it more easy, speedy and comfortable to apply the stored intellect. Collected information through the ages has to be used for further research, betterment and overall development of the society. Collection development in electronic environment in the engineering college libraries. The various changes that have occurred in acquisition, retrieval and storage of information processes due to technological

developments have been discussed. Limitations, issues, challenges restrictions and problems being faced by library managers and clientele due to the same have also been highlighted. The way these developments have affected the academic environment in general and engineering college libraries in particular and changed the role of librarian has also been focused. Dambra et al., (2013) expressed the increasingly e-books are becoming alternatives to print books in academic libraries, thus providing opportunities to assess how well the use of e-books meets the requirements of academics. This study uses the task-technology fit (TTF) model to explore the interrelationships of e-books, the affordances offered by smart readers, the information needs of academics, and the 'fit' of technology to tasks as well as performance. Research makes two contributions the development of an e-book TTF construct and the testing of that construct in a model validating the efficacy of the TTF framework in measuring perceived fit of e-books to academic tasks. Kumar (2014) describes the initiatives on electronic collection and development in engineering college libraries in the Rayalaseema Region of Andhra Pradesh. Author opinions of librarians on most preferred electronic materials and various electronic resources acquainted with their library. The electronic library initiatives cover a variety of activities starting from the electronic collection building, digitization, digital collection, maintenance, and digital preservation. 34.57% of libraries are in the process of building digital collections

3. Research Objectives

The main research objectives are:

1. To study the profile of the users of Mysore region engineering college libraries such as: gender, age, designation, education qualification and subject specialization and to what extent they know their library etc.
2. To know the purpose of visiting library in Mysore Region Engineering College Libraries (MRECL).
3. To know the library orientation for collection use in Mysore Region Engineering College Libraries (MRECL).
4. To know the use of e-collection in Mysore Region Engineering College Libraries (MRECL).
5. To know the use of e-databases in Mysore Region Engineering College Libraries (MRECL).

4. Scope and Limitation

The scope of study use of e-collection at in Mysore region engineering college libraries, Visvesvaraya Technological University (VTU), at Karnataka state India. Geographically the coverage of the institutions is limited to Mysore Region which consists of thirteen districts. From all 11 districts there are 52 engineering colleges which are the sample of the study. The engineering colleges of the other three regions such as Bangalore, Gulbarga and Belgaum are excluded from the study. Further the study abounds the engineering six disciplines such as Civil Engineering, Computer Science and Engineering, Electrical and Electronics Engineering, Electronics and Communication Engineering, Information Science and Engineering and Mechanical Engineering branches.

5. Methodology and Survey Design

The present study started with literature search from LISA (Library and Information Science Abstract) database and Library and Information Science and Technology Abstract (LISTA), Google scholar, and Emerald Insight. Some important ALA books were also consulted to design the questionnaire for librarians. A well design questionnaire is used to collect the data. The analysis is based on the primary data collected from the librarians of 47 engineering colleges of Mysore region, Visvesvaraya Technological University (VTU), at Karnataka state, India.

6. Results and Discussions

The results and discussion of the present study are given in the following paragraphs in a systematic manner. The presentation is about all types of non printed library materials such as e-books, e-journals, e-theses, and e-database other materials.

6.1. Gender

The gender wise status of Mysore region engineering college library users is shown in table 6.1 It may be seen from the table that majority of the respondents numbering 455 (59.9 %) are male and the remaining 305 (40.1%) are female respondents.

Table 6.1

Gender of the Users

S/N	Gender	No. of Responses	Percentage
1	Male	455	59.9
2	Female	305	40.1
	Total	760	100.0

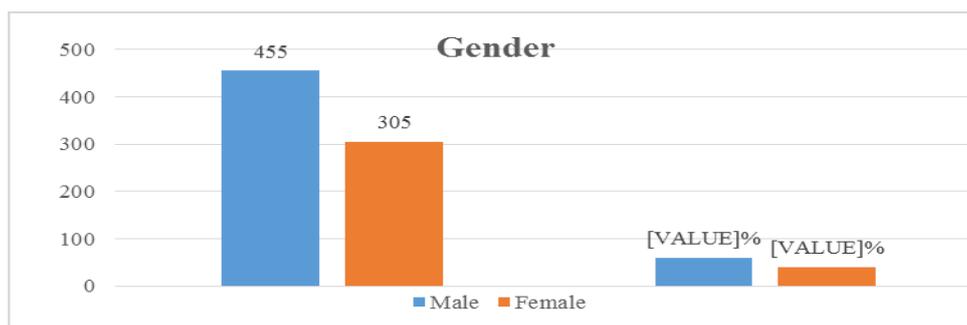


Fig. 1: Gender of the Users

6.2. Age of the Users

The Age wise distribution of engineering college respondents is shown in table 6.2. The age of the engineering college users is arranged in different ages, ranging between 25 and 56 years. It is clear from the table that majority of the respondents numbering 400(52.6%) are in the age group of 26 – 30 years. The respondents below the age group of <25 years

scoring 154 (20.3%) are the second largest. About 122(16.1%) engineering college users fall into the age group of 31 – 35 years. A very few respondents accounting 43(5.7%) are under the age group of 36 – 40 years. Only 22(2.9%) of them fall under 46-50 years age group and finally 14(1.8%) are in the age group of 41-45. The table clearly shows that the age group of users between 26 and 30 are in the highest percentage.

Table 6.2

Age of the Users

S/N	Range of Age	No. of Responses	Percentage
1	<25	154	20.3
2	26-30	400	52.6
3	31-35	122	16.1
4	36-40	43	5.7
5	41-45	14	1.8
6	46-50	22	2.9
7	51-55	5	.7
8	56>	0	0
Total		760	100.0

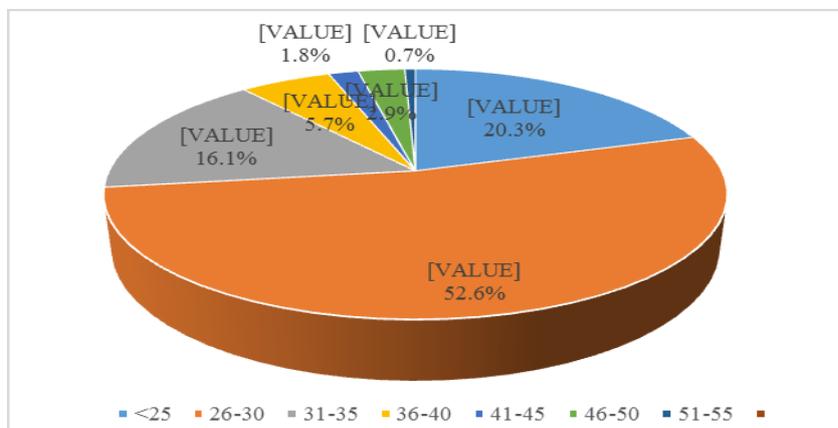


Fig. 2: Age of the Users

6.3. Designation of the Users

Engineering college users have different status. Table 6.3. shows the status wise breakup of responses. It is observed from the table that, majority accounting 668(87.9%) have the designation as Assistant Professor. Whereas 67 respondents representing 8.8 percent are Associate Professors, remaining 21(2.8%) are designated as Professor and the remaining four respondents scoring .5% consist of others.. Thus the highest numbers of respondents are Assistant Professors.

Table 6.3

Designation of the Users

S/N	Designation	No. of Responses	Percentage
1	Asst. Professor	668	87.9
2	Associate Professor	67	8.8
3	Professor	21	2.8
4	Others	4	.5
	Total	760	100.0

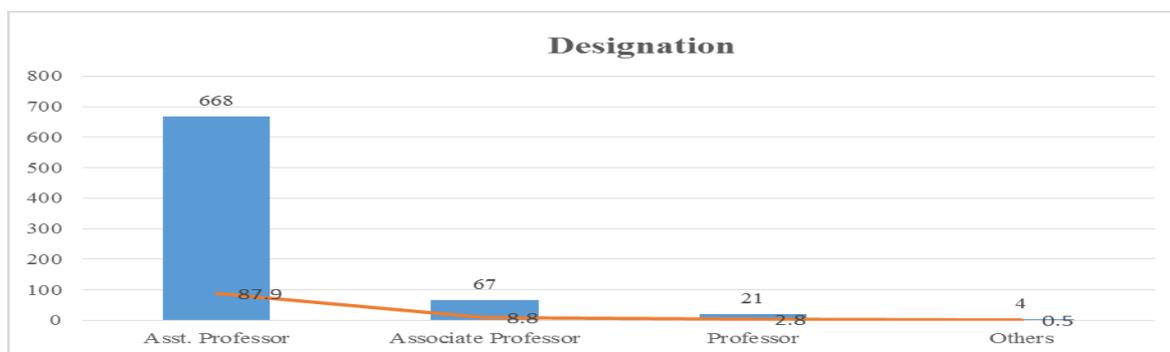


Fig. 3: Designation of the Users

6.4. Educational Qualifications of the Users

The educational qualification of the users of MRECL is presented in table 6.4. The table shows that nearly 606 (79.7%) users have BE/M.Tech degree qualifications; and 79 respondents are BE degree holders representing 10.4 percent. About 60 (8.3%) respondents have the degree of B.E. / M.Tech. /PhD qualification; a very few (10; 1.3%) respondents have MSc qualifications; just 2 respondents, scoring .3% have qualification of a special degree called MSc Engineering. Thus majority of the respondents amounting 606 (79.7%) have BE/M.Tech degree.

Table 6.4

Educational Qualifications of the Users

S/N	Educational Qualification	No. of Responses	Percentage
1	B.E	79	10.4
2	B.E./ M.Tech	606	79.7
3	B.E./ M.Tech./ PhD	63	8.3
4	MSc.	10	1.3
5	Any Other	2	.3
	Total	760	100

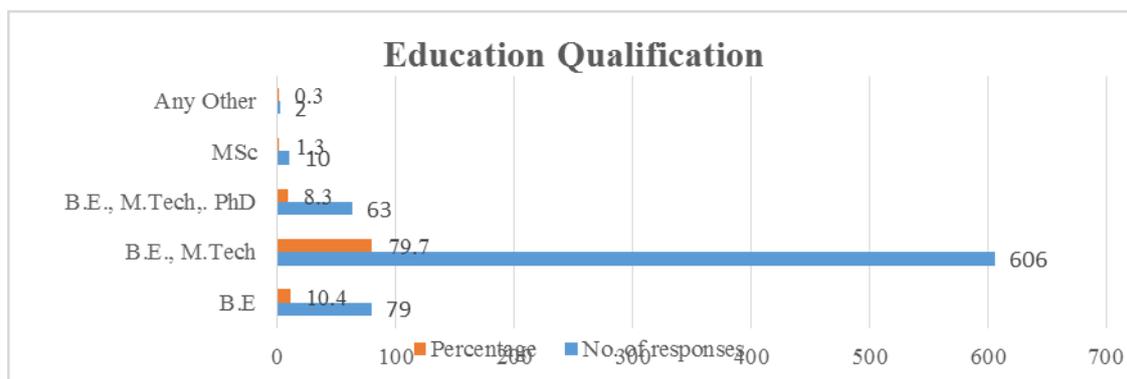


Fig. 4: Education Qualification of the Users

6.5. Departments Wise Users

Department wise breakup of the MRECL respondents is presented in table 6.5. The table shows that, of the 760 respondents, nearly 195 (25.5%) users are from the department of Electronic & Communication Engineering.; 175 respondents are from the department of Computer Science & Engineering representing 23.0 percent; 144 (18.9%) respondents are from the department of Civil Engineering; 124 (16.3%) users are from the department of Mechanical engineering, a very few respondents scoring 29 (3.8%) are from the department of Information Science and Engineering, and only 6 respondents representing .8 percent of from the department of Instrumentation Technology and finally 2(.3%) of users are from the department of Automobile Engineering.

Thus majority of the MRECL respondents amounting 195 (25.5%) are from the department of Electronic & Communication Engineering.

Table 6.5

Departments of the Users

S/N	Departments	No. of Responses	Percentage
1	Automobile Engineering	2	.3
2	Civil Engineering	144	18.9
3	Computer Science & Engineering	175	23.0
4	Electrical and Electronics Engineering	84	11.1
5	Electronic & Communication Engineering	195	25.5
6	Environmental Engineering	1	.1
7	Information Science and Engineering	29	3.8
8	Industrial and Production Engineering	1	.1
9	Instrumentation Technology	6	.8
10	Mechanical engineering	124	16.3
	Total	760	100

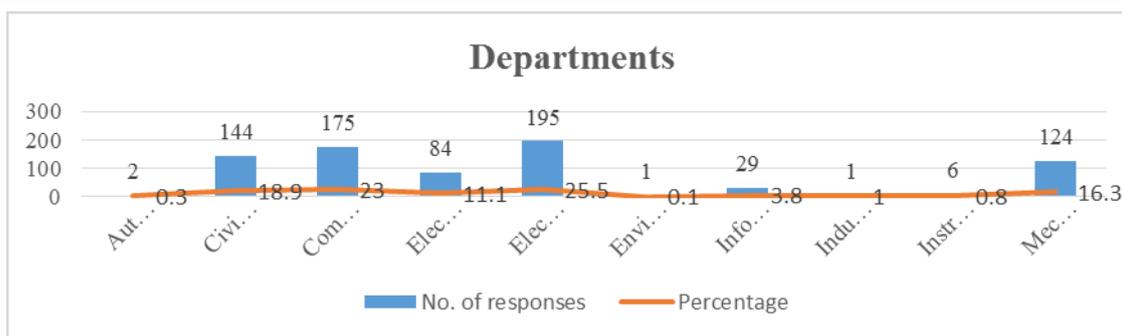


Fig. 4: Department wise of the Users

6.6. Library Orientation for Collection Use

Conducting of orientation classes is ‘helpful’ to the users in using the library. If the user orientation classes are ‘helpful’ or not in using the collection by the users in Mysore Region Engineering College Library (MRECL) is shown in the table 6.6. It is clear from the table that, there is significant difference ($\chi^2=201.697$; $P<.000$) with respect to the ‘Lecture cum demonstration’. About 275(36.2%) say ‘helpful’; 202(26.6%) of them say ‘highly ‘helpful’ ’and very few accounting 54(7.1%) say that it is ‘not at all ‘helpful’’, with a mean value of 2.37 and the SD being 1.20.

Similarly, there is a significant difference ($\chi^2=184.039$; $P<.000$) with respect to the ‘Computer training’ the respondents scoring 292(38.4%) say, it is ‘helpful’; 153(20.1%) of them say ‘moderately helpful’ and very few accounting 72(9.5%) say it is ‘not at all helpful’, with a mean value of 2.67 and SD being 1.19.

With respect to the use of ‘Audio-visual Aid’ Chi-Square test reveals that there is a significant difference ($\chi^2=79.645$; $P<.000$) with in the use in conducting library orientation classes. Nearly 232(30.5%) say the use of A/V aids is ‘helpful’; 177(23.3%) of them say it is ‘moderately helpful’ and very few accounting 90(11.8%) say it is ‘partially helpful’, with a mean value of 2.74 and SD being 1.31.

Table 6.6

Library Orientation for Collection Use

S/N	Modes of orientation class	Responses in Percentage (N=760)					Mean	SD	χ^2	P Value
		1	2	3	4	5				
1	Lecture cum demonstration	202 (26.6)	275 (36.2)	132 (17.4)	97 (12.8)	54 (7.1)	2.37	1.20	201.697	.000
2	Computer training	114 (15.0)	292 (38.4)	153 (20.1)	129 (17.0)	72 (9.5)	2.67	1.19	184.039	.000
3	Audio-visual Aid	143 (18.8)	232 (30.5)	177 (23.3)	90 (11.8)	118 (15.5)	2.74	1.31	79.645	.000
4	Written materials	166 (21.8)	269 (35.4)	160 (21.1)	118 (15.5)	47 (6.2)	2.48	1.17	171.908	.000

Key: 1 – Highly helpful, 2 – ‘helpful’, 3 – Moderately helpful, 4 –Partially helpful, 5 – Not at all helpful, SD = Standard deviation, N=Number of Respondents, χ^2 = Chi-Square, P = Probability, $P \leq .050$ – Significant, $P > .050$ – Not Significant, Numbers in Parentheses Indicates Percentage

Further, about the use of written material in conducting library orientation classes , the Chi-Square test reveals that there is a significant difference ($\chi^2=171.908$; $P<.000$) with a score of 269(35.4%) of respondents saying ‘helpful’; 166(21.8%) of them say ‘highly helpful’, only 47(6.2%) say ‘not at all helpful’ with a mean value of 2.68 and SD being 1.17.

6.7. Purpose of Library Visit

The MRECL users visit library for various purposes, like to prepare for lectures, for research work, to borrow books, to read newspapers etc. The purposes for which MRECL users visit their library are presented in table 6.7. Chi-Square test reveals that There are significant differences ($\chi^2=540.211$; $P<.000$) in case the purpose of visit - ‘**To Prepare for Lectures**’, scoring 402(52.9) and the respondents say ‘agree’; 141(18.6%) of users say ‘strongly agree’ and very few accounting 57(7.5%) state ‘strongly disagree’ with a mean value of 6.36 and SD being 1.13.

There are significant differences ($\chi^2=357.171$; $P<.000$) among the respondents with regard to the purpose –‘**Doing Research Work**’. Many respondents scoring 347(45.7%) who say ‘agree’; 158(20.8%) of users say ‘strongly agree’; only 50(6.6%) of them state strongly disagree with a mean value of 3.63 and SD being 1.12.

There are significant differences ($\chi^2=637.329$; $P<.000$) in case of the purpose ‘**To Borrow Books**’ among the users. Many respondents scoring, 325(42.8%) say agree; 319(42.0%) say ‘strongly agree’; only 24(3.2%) of them ‘disagree’ with a mean value of 4.14 and SD being 1.01

The MRECL users also visit library ‘**For Reference Work**’, and There are significant differences ($\chi^2=708.697$; $P<.000$) among the respondents. It is observed that Many respondents scoring 390(51.3%) say ‘agree’; nearly 256(33.7%) of the respondents say ‘strongly agree’, and very few, accounting 21(2.8%) state ‘disagree’ with a mean value of 4.09 and SD being .91.

There are significant differences ($\chi^2=766.816$; $P<.000$) among the respondents with regard to the purpose - ‘**To Read Text Books and Other Reading Materials**’. Many respondents scoring 419(55.1%) say, ‘agree’; 228(30.0%) of them say ‘strongly agree’; only 29(4.3%) of them state ‘strongly disagree’ with a mean value of 4.03 and SD being .94.

There are significant differences ($\chi^2=90.447$; $P<.000$) among the respondents with regard to the purpose - ‘**To Read Personal Books**’. Many respondents scoring, 251(33.0%) say ‘agree’; nearly 159(20.9%) respondents say ‘neither agree nor disagree’, and only 107(14.1%) of them state ‘strongly agree’ with a mean value of 3.12 and SD being 1.29

There are significant differences ($\chi^2=394.803$; $P<.000$) among the respondents with regard to the purpose - **‘To Use Current Journals’** and a Many of them scoring , 361(47.5%) say ‘agree’; 150(19.7%) respondents say ‘strongly agree’ only 58(7.6%) of them ‘strongly disagree’ with a mean value of 3.62 and SD being 1.13.

Similarly, there are significant differences ($\chi^2=261.092$; $P<.000$) among the respondents with regard to the purpose **‘To Use Back Volumes of Subject Journals’**. Many respondents scoring, 324(42.6%), say ‘agree’; 152(20.0%) of them ‘neither agree nor disagree’; only 86(11.3%) of them state ‘strongly disagree’ with a mean value of 3.36 and SD being .1.19.

Table 6.7

Purpose of Library Visit

S/N	Purposes	Responses in Percentage (N=760)					Mean	SD	χ^2	P Value
		1	2	3	4	5				
1	To prepare for lectures	57 (7.5)	87 (11.4)	73 (9.6)	402 (52.9)	141 (18.6)	3.63	1.13	540.211	.000
2	For research work	50 (6.6)	81 (10.7)	124 (16.3)	347 (45.7)	158 (20.8)	3.63	1.12	357.171	.000
3	To borrow books	36 (4.7)	24 (3.2)	56 (7.4)	325 (42.8)	319 (42.0)	4.14	1.01	637.329	.000
4	For reference work	26 (3.4)	21 (2.8)	67 (8.8)	390 (51.3)	256 (33.7)	4.09	.91	708.697	.000
5	To read text books and other reading materials	29 (3.8)	33 (4.3)	51 (6.7)	419 (55.1)	228 (30.0)	4.03	.94	766.816	.000
6	To read personal books	124 (16.3)	119 (15.7)	159 (20.9)	251 (33.0)	107 (14.1)	3.12	1.29	90.447	.000
7	To use current journals	58 (7.6)	72 (9.5)	119 (15.7)	361 (47.5)	150 (19.7)	3.62	1.13	394.803	.000
8	To use back volumes of subject journals	86 (11.3)	91 (12.0)	152 (20.0)	324 (42.6)	107 (14.1)	3.36	1.19	261.092	.000
9	To request inter library loan	215 (28.3)	155 (20.4)	148 (19.5)	172 (22.6)	70 (9.2)	2.64	1.34	73.145	.000
10	To refer old question papers	73 (9.6)	36 (4.7)	67 (8.8)	376 (49.5)	208 (27.4)	3.80	1.17	527.855	.000
11	To browse newspapers/popular magazines	74 (9.7)	54 (7.1)	103 (13.6)	350 (46.1)	179 (23.6)	3.66	1.19	381.724	.000

12	To use internet	201 (26.4)	142 (18.7)	116 (15.3)	209 (27.5)	92 (12.1)	2.80	1.40	70.039	.000
13	To use electronic resources	178 (23.4)	137 (18.0)	134 (17.6)	222 (29.2)	89 (11.7)	2.87	1.36	66.408	.000
14	To getting photocopies	169 (22.2)	113 (14.9)	133 (17.5)	251 (33.0)	94 (12.4)	2.98	1.36	100.895	.000

Key: 1 – Strongly disagree, 2 – Disagree, 3 – Neither agree nor disagree, 4 – Agree, 5 – ‘strongly agree’, SD = Standard deviation, N=Number of Respondents, χ^2 = Chi-Square, P = Probability, $P \leq .050$ – Significant, $P > .050$ – Not Significant, Numbers in Parentheses Indicates Percentage

There are significant differences ($\chi^2=73.145$; $P<.000$) among the respondents with regard to the purpose of library visit - ‘**To Request Inter Library Loan**’, where, 215(28.3%) respondents say ‘strongly disagree’; nearly 172(22.6%) of them say agree, and only 70(9.2%) of them say ‘strongly disagree’ with a mean value of 2.64 and SD being 1.34.

There are significant differences ($\chi^2=527.855$; $P<.000$) among the respondents with respect to the purpose - ‘**To Refer Old Question Papers**’. Where, many respondents scoring 376(49.5%) say ‘agree’. About, 208(27.4%) of them say ‘strongly agree’ and very few accounting 36(4.7%) of them disagree with a mean value of 3.80 and SD being 1.17.

There are significant differences ($\chi^2=381.724$; $P<.000$) among respondents with regard to the purpose ‘**To Browse Newspapers/Popular Magazines**’. Many respondents scoring 350(46.1%) say ‘agree’; nearly 179(23.6%) of users say ‘strongly agree’, and only 54(7.1%) of them state disagree with a mean value of 3.66 and SD being 1.19.

There are significant differences ($\chi^2=70.039$; $P<.000$) among the respondents in case of the purpose - ‘**To Use Internet**’. Many respondents scoring 209(27.5%) say ‘agree’; 201(26.4%) of them say ‘strongly disagree’; only 92(12.1%) of them ‘strongly agree’ with a mean value of 2.80 and SD being 1.40.

There are significant differences ($\chi^2=66.408$; $P<.000$) among the respondents with regard to ‘**To Use Electronic Resources**’. Many respondents scoring 222(29.2%) ‘agree’; nearly 178(23.4%) of users say ‘strongly disagree’, and only 89(11.7%) of them say ‘strongly agree’ with a mean value of 2.87 and SD being 1.36.

There are significant differences ($\chi^2=100.895$; $P<.000$) among the respondents with regard the purpose - ‘**To Getting Photocopies**’. Many respondents scoring, 251(33.0%) of respondents say ‘agree’. About 169(22.2%) of the users say ‘strongly disagree’ and very few scoring 94(12.4%) say ‘strongly agree’ with a mean value of 2.98 and SD being 1.36.

6.8. Use of e-Collection

There are various types of e collection such as E - journals; -articles; E-theses and dissertation; Database; E-books; Mailing lists; Newsgroups; Newsletters; Subject gateways; E-archives; Web resources; Downloading services; Online search service. The analysis of each one of the e- collection used by the respondents is presented in table 6.8. It may be seen from the table that, there is a significant difference ($\chi^2=27,553$; $P<.000$) in the use of **‘E-Journals’**, and many respondents say ‘sometimes’ scoring 196(25.8%); 169(22.2%) say ‘rarely’ and very few accounting 113(14.9%) state ‘always’ with a mean value of 3.15 and SD being 1.32.

There is a significant difference ($\chi^2=70.539$; $P<.000$) in case of the use of **‘E-Articles’**, among the respondents. Many respondents scoring, 206(27.1%) say ‘sometimes’; nearly 191(25.1%) of users say ‘rarely’, and only 76(10.0%) of them state ‘always’ with a mean value of 3.18 and SD being 1.22.

Table 6.8

Use of e - Collection

S/N	e-Collection	Responses in Percentage (N=760)					Mean	SD	χ^2	P Value
		1	2	3	4	5				
1	E-journals	113 (14.9)	131 (17.2)	196 (25.8)	169 (22.2)	151 (19.1)	3.15	1.32	27.553	.000
2	E-articles	76 (10.0)	157 (20.7)	206 (27.1)	191 (25.1)	130 (17.1)	3.18	1.22	70.539	.000
3	E-theses and dissertation	78 (10.3)	132 (17.4)	215 (28.3)	186 (24.5)	149 (19.6)	3.25	1.24	72.434	.000
4	Database	86 (11.3)	139 (18.3)	223 (29.3)	188 (24.7)	124 (16.3)	3.16	1.22	76.618	.000
5	E-books	94 (12.4)	170 (22.4)	194 (25.5)	180 (23.7)	122 (16.1)	3.08	1.26	46.947	.000
6	Mailing lists	81 (10.7)	143 (18.4)	218 (28.7)	171 (22.5)	147 (19.3)	3.21	1.25	64.895	.000
7	Newsgroups	91 (12.0)	140 (18.4)	187 (24.6)	213 (28.0)	129 (17.0)	3.19	1.25	61.447	.000
8	Subject gateways	84 (11.1)	144 (18.9)	207 (27.2)	208 (27.4)	117 (15.4)	3.17	1.22	79.434	.000
9	E-archives	86 (11.3)	133 (17.5)	223 (29.3)	177 (23.3)	141 (18.6)	3.20	1.25	69.105	.000

10	Web resources	101 (13.3)	139 (18.3)	220 (28.9)	190 (25.0)	110 (14.5)	3.09	1.23	69.750	.000
11	Downloading services	112 (14.7)	141 (18.6)	188 (24.7)	184 (24.2)	135 (17.8)	3.11	1.31	28.487	.000
12	Online search service	126 (16.6)	123 (16.2)	192 (25.3)	189 (24.9)	130 (17.1)	3.09	1.32	32.697	.000

1 – Always, 2 – Very often, 3 – Sometimes, 4 – Rarely, 5 – Never, SD = Standard deviation, N=Number of Respondents, χ^2 = Chi-Square, P = Probability, $P \leq .050$ – Significant, $P > .050$ – Not Significant, Numbers in Parentheses Indicates Percentage

There is a significant difference ($\chi^2=72.434$; $P<.000$), among the respondents in the use of '**E-Theses and Dissertation**'. It is observed that many respondents scoring 215(28.3%) says 'sometimes'; 186(24.5%) users say 'rarely'; only 78(10.3%) of them say 'always' with a mean value of 3.25 and SD being 1.24.

There is a significant difference ($\chi^2=76.618$; $P<.000$) among the respondents with regard to the use of e-'**Database**'. Many respondents scoring 223(29.3%) say 'sometimes'; nearly 188(24.7%) of users say 'rarely'; and only 86(11.3%) of them state 'always' with a mean value of 3.16 and SD being 1.22.

There is a significant difference ($\chi^2=46,947$; $P<.000$) among the respondents with regard to the use of '**E-Books**'. Many respondents scoring, 194(25.5%) say 'sometime'; 180(23.7%) of respondents say 'rarely', and Nearly 94(12.4%) of them state 'always' with a mean value of 3.08 and SD being 1.26.

There is a significant difference ($\chi^2=64.895$; $P<.000$) among the respondents in use of '**Mailing Lists**'. It is observed that many respondents scoring 218(28.3%) says 'sometimes'; 171(22.5%) of respondents say 'rarely'; only 81(10.7%) of them state 'always' with a mean value of 3.21 and SD being 1.25.

There is a significant difference ($\chi^2=61.447$; $P<.000$) among the respondents with regard to the use of **Newsgroup**'. Many respondents scoring 213(28.0%) say 'rarely'; nearly 187(24.6%) respondents say sometimes; only 91(12.0%) of them state always with a mean value of 3.19 and SD being 1.25.

There is a significant difference ($\chi^2=79.434$; $P<.000$) in the use of '**Subject Gateways**' among the respondents. It is observed that many respondents scoring 208(27.4%) say 'rarely', nearly 207(27.2%) of them say 'sometimes'; only 84(11.1%) state 'always' with a mean value of 3.17 and SD being 1.22.

There is a significant difference ($\chi^2=69.105$; $P<.000$) among the respondents with regard to the use of - '**E-Archives**'. Many respondents scoring 223(29.3%) say 'sometimes'; nearly 177(23.3%) of users say 'rarely', and only 86(11.3%) of them state 'always' with a mean value of 3.20 and SD being 1.25.

There is a significant difference ($\chi^2=69.750$; $P<.000$), among the respondents with regard to the use of '**Web Resources**'. Many respondents scoring 220(28.9%) say 'sometimes'; 190(25.0%) of them say 'rarely'; and nearly 101(13.3%) state 'always' with a mean value of 3.09 and SD being 1.23.

There is a significant difference ($\chi^2=28.487$; $P<.000$) among the respondents with regard to the use of '**Downloading Services**'. Many respondents scoring 188(24.7%) say 'sometimes'; nearly 184(24.2%) respondents say 'rarely'; only 112(14.7%) of them say 'always' with a mean value of 3.11 and SD being 1.31.

There is a significant difference ($\chi^2=32.697$; $P<.000$) among the respondents with regard to the use of '**Online Search service**'. Many respondents scoring 192(25.3%) say 'sometimes'; nearly 189(24.9%) of respondents say 'rarely'; only 123(16.2%) of them say 'very often' with a mean value of 3.09 and SD being 1.32.

Thus, of all the type of the use of e-collection - '**E-theses and dissertation**' has the highest mean value with 3.25 and SD being 1.24; the Chi Square values reveal that ($\chi^2 = 72.434$, $P>.000$) there is a significant difference among the respondents and the biggest choice of respondents is 'sometimes' scoring, 215(28.3%).

6.9. Use of e- Database

There are various types of e-Database such as ASTM Digital Library; ASCE (American Society of Civil Engineers); ASME (American Society of Mechanical Engineers); Engineering Village; IEE(Institute of electrical engineers); IEEE (The institute of electrical and electronics engineers); J-Gate; Springer; Mc-Graw-Hill; Science Direct; Elsevier. The analysis of each one of the e-Database used by the respondents is presented in table 6.9. It may be seen from the table that, there is a significant difference ($\chi^2=258.592$; $P<.000$) in use of '**ASTM Digital Library**'. Many respondents scoring 298(39.2%) say 'agree'; 202(26.6%) respondents say 'strongly disagree' and very few accounting 52(6.8%) state 'disagree' with a mean value of 3.01 and SD being 1.40.

There is a significant difference among the respondents ($\chi^2=225.987$; $P<.000$) in case of the use of '**ASCE**' (American Society of Civil Engineers). Many respondents scoring, 304(40.4%) say 'agree'; nearly 167(22.0%) of them say 'strongly disagree', and only 70(9.2%) of them state 'disagree' with a mean value of 3.10 and SD being 1.35. Chi Square results given in the table 6.3.3 reveal that ($\chi^2 =221.776$; $P<.000$), there is a significant difference among MRECL users in the use of '**ASME**' (American Society of Mechanical Engineers). It is observed that many respondents scoring 306(40.3%) says 'agree'; 165(21.7%) users say 'strongly disagree', and only 82(10.8%) of them say '**disagree**' with a mean value of 3.10 and SD being 1.36.

Table 6.9

Use of e- Database

S/N	e- Databases	Responses in Percentage (N=760)					Mean	SD	χ^2	P Value
		1	2	3	4	5				
1	ASTM Digital Library	202 (26.6)	52 (6.8)	125 (16.4)	298 (39.2)	83 (10.9)	3.01	1.40	258.592	.000
2	ASCE (American Society of Civil Engineers)	167 (22.0)	70 (9.2)	128 (16.8)	304 (40.0)	91 (12.0)	3.10	1.35	225.987	.000
3	ASME (American Society of Mechanical Engineers)	165 (21.7)	82 (10.8)	114 (15.0)	306 (40.3)	93 (12.2)	3.10	1.36	221.776	.000
4	Engineering Village	317 (41.7)	83 (10.9)	120 (15.8)	159 (20.9)	81 (10.7)	2.47	1.46	250.658	.000
5	IEE(Institute of electrical engineers)	103 (13.6)	50 (6.6)	115 (15.1)	202 (26.6)	290 (38.2)	3.69	1.38	234.987	.000
6	IEEE(The institute of electrical and electronics engineers)	78 (10.3)	40 (5.3)	92 (12.1)	231 (30.4)	319 (42.0)	3.88	1.28	366.776	.000
7	J-Gate	108 (14.2)	67 (8.8)	121 (15.9)	187 (24.6)	277 (36.4)	3.60	1.41	177.447	.000
8	Springer	87 (11.4)	50 (6.6)	88 (11.6)	206 (27.1)	329 (43.3)	3.84	1.34	348.487	.000
9	Mc-Graw-Hill	263 (34.6)	40 (5.3)	94 (12.4)	232 (30.5)	131 (17.2)	2.90	1.55	230.724	.000
10	Science Direct	295 (38.8)	46 (6.1)	113 (14.9)	196 (25.8)	110 (14.5)	2.71	1.53	242.803	.000
11	Elsevier	145 (19.1)	55 (7.2)	111 (14.6)	187 (24.6)	262 (34.5)	3.48	1.49	160.947	.000

Key: 1 – Strongly disagree, 2 – Disagree, 3 – Neither agree nor disagree, 4 – Agree, 5 – Strongly agree, SD = Standard deviation, N=Number of Respondents, χ^2 = Chi-Square, P = Probability, $P \leq .050$ – Significant, $P > .050$ – Not Significant, Numbers in Parentheses Indicates Percentage

There is a significant difference ($\chi^2=250.658$; $P<.000$) among the respondents with regard to the use of 'Engineering Village'. Many respondents scoring 317(41.7%) say 'strongly disagree'; nearly 159(20.9%) of them say 'agree', and only 81(10.7%) of them state 'strongly agree' with a mean value of 2.47 and SD being 1.46.

There is a significant difference ($\chi^2=234.987$; $P<.000$) among the respondents of MRECL in the use of 'IEE' (Institute of Electrical Engineers). It is observed that many respondents scoring 209(38.2%) say 'strongly agree'; 202(26.6%) of them say 'agree' and only 50(6.6%) of them 'disagree' with a mean value of 3.69 and SD being 1.38.

There is a significant difference ($\chi^2=366.776$; $P<.000$) among the respondents with regard to the use of 'IEEE' (The Institute of Electrical and Electronics Engineers). Many respondents scoring 319(42.0%) says 'strongly agree'; 231(30.4%) of them say 'agree', and only 40(5.3%) of them state 'disagree' with a mean value of 3.88 and SD being 1.28.

There is a significant difference ($\chi^2=177.447$; $P<.000$), among the respondents with regard to the use of 'J-Gate'. Many respondents scoring 277(36.4%) says 'strongly agree'; 187(24.6%) of them say 'agree' and only 67(8.8%) of them state 'disagree' with a mean value of 3.60 and SD being 1.41.

There is a significant difference ($\chi^2=348.487$; $P<.000$) in case of the use of 'Springer' among the respondents. Many of them scoring, 329(43.3%) say 'strongly agree'; 206(27.1%) of them say 'agree'; only 50(6.6%) of them state 'disagree' with a mean value of 3.84 and SD being 1.34.

There is a significant difference ($\chi^2=230.724$; $P<.000$) in the use of 'Mc-Graw-Hill' e-database among the respondents. Many respondents scoring, 263(34.6%) say 'strongly disagree'; nearly 232(30.5%) of them say 'agree', and only 40(5.3%) of them say 'disagree' with a mean value of 2.90 and SD being 1.55.

There is a significant difference ($\chi^2=242.803$; $P<.000$) among the respondents in the use of 'Science Direct'. It is observed that many respondents scoring 295(38.8%) say 'strongly disagree'; 196(25.8%) of them say 'agree', and only 46(6.1%) state disagree with a mean value of 2.71 and SD being 1.53.

There is a significant difference ($\chi^2=160.947$; $P<.000$), among the respondents with regard to the use of 'Elsevier'. Many respondents scoring 262(34.5%) say 'strongly agree'; nearly 187(24.6%) say 'agree'; only very few accounting 55(7.2%) state 'disagree' with a mean value of 3.48 and SD being 1.49.

Thus, the variable e- database 'IEEE (The institute of electrical and electronics engineers)' has the highest mean value with 3.88 and SD being 1.28; the results of Chi Square test reveal that ($\chi^2 = 366.776$, $P>.000$) the differences among the respondents are highly significant and the biggest choice of respondents in the use of 'IEEE' is 'strongly agree' scoring, 319(42.0%).

7. CONCLUSION

The topic use of e-collection in the research of Library and Information Science is one of the important concept in the present era. There are three important components in the research and education of librarianship. The library collection is broadly grouped in to print and non-print. E-collection collection consists of E-journals, E-articles, E-theses and

dissertation, Database, E-books, Mailing lists, Newsgroups, Subject gateways, E-archives, Web resources, Downloading services, Online search service and other types. The present study started with literature search from LISA (Library and Information Science Abstract) database and Library and Information Science and Technology Abstract (LISTA), Google scholar, and Emerald Insight. Some important ALA books were also consulted to design the questionnaire for librarians. A well design questionnaire is used to collect the data. The analysis is based on the primary data collected from the librarians of 47 engineering colleges of Mysore region, In this study an attempt to made to examine the use of e-collection by the faculty members of Mysore region engineering college libraries. There is a significant difference ($\chi^2=64.895$; $P<.000$) among the respondents in use of 'Mailing Lists'. It is observed that many respondents scoring 218(28.3%) says 'sometimes'; 171(22.5%) of respondents say 'rarely'; only 81(10.7%) of them state 'always' with a mean value of 3.21 and SD being 1.25. There is a significant difference ($\chi^2=348.487$; $P<.000$) in case of the use of '**Springer**' among the respondents Many of them scoring, 329(43.3%) say 'strongly agree'; 206(27.1%) of them say 'agree'; only 50(6.6%) of them state 'disagree' with a mean value of 3.84 and SD being 1.34. Hence, use of e-collection is very useful for the engineering colleges libraries in the present days.

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