

Barriers to the Use of Library Collection vs. Demographic Characteristics of Engineering College Library Users in Karnataka: A Study

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Abstract

This paper focuses on the barriers of using library collection vs. demographic variables of the users of Mysore region engineering college libraries (MRECL) in Karnataka. The principal objective of the study therefore, is to assess the relationship between the four demographic variables such as gender, age, educational qualifications and designation with that of barriers to the use library collection. This is shown by the way of cross tabulation of barriers and user characteristics. A structured questionnaire was designed for the survey, which was randomly distributed among 1000 engineering college faculties of the Mysore Region and 760 (76%) complete questionnaires were received. The data collected through questionnaire were organized and tabulated by using SPSS. In this study, four demographic factors such as gender, age, designation and education qualifications are correlated with that of the barriers towards the use of library collection such as lack of knowledge in using library catalogue, lack of information about how to use library resources and tools, lack of time to acquire skills needed to use library resources, less computer systems to access e-resources from the library, lack of support from library staff etc. The study reveals that for the barriers of 'Less Computer Systems to Access e-resources from the Library' there is significant differences ($\chi^2 = 60.224$; $P < 0.000$) more number scoring 139 (18.3%) of MRECL 'strongly agree' about barriers towards the use of library collection with the highest mean value of 3.22 and SD being 18.3. Therefore, the parameter 'Lack of Knowledge in using Library Catalogue vs. Education Qualification', the biggest choice was 'disagree' constituting 25.7%. Among individual respondents such as BE, the choice is once again 'agree' scoring 40.5%; 24.6%; BE., M Tech; the choice is 'neither agree or nor disagree' scoring 58.7% and BE, M. Tech, PhD holders big choice was 'strongly disagree' scoring 28.6% respectively; for the parameter 'lack of information about how to use library resources and tools vs. education qualification', the biggest choice was 'disagree' constituting 30.5%. Among individual respondents such as BE, BE, M. Tech and the choice is once again 'disagree' scoring varying percentages like 38.0%; 30.5%; and BE, M Tech, PhD holders big choice was 'strongly disagree' scoring 25.4% respectively; for the parameter 'lack of time to acquire skills needed to use library resources vs. education qualification', the biggest choice was 'disagree' constituting 27.5%. Among individual respondents such as BE; BE, M. Tech and the choice is once again 'disagree' scoring varying percentages like 36.7%, 27.2% and BE, M Tech, PhD holders big choice was 'neither agree or nor disagree' scoring 27.9% respectively. The other barriers to use library collection take a subsequent stand as shown in the various tables.

Keywords: Karnataka, barriers and use of library collection, use of library collection, demographic variables, faculty members, engineering colleges, Mysore region

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INTRODUCTION

Libraries are the store houses of knowledge. This knowledge is available in the library collection. Building the need based collection is a daunting task to the librarians. When a book is selected to add to the existing

collection, it should meet the specific information needs of the library users. If the collection meets the information needs, then the users feel that the tax payer's money is well spent. From the library's point of view, collection building means reintroducing them

to the tenets of collection development process. The librarians need to follow the principles of book selection while building the library collection. These principles provide necessary frame work for collection development. The rationale behind collection development principles is to provide the right book to the right reader at the right time with least cost. Optimising the use of the library collections makes the collection development process cost effective.

In the process of collection development the librarians must keep some questions in mind they are as follows [1]:

- (i) What do I want to collect?
- (ii) What are my collection preferences?
- (iii) How much can I afford (money wise)?
- (iv) From where can I buy the items, I want and need?
- (v) Where will I place, display, my collection?
- (vi) When should I get the items in my collection?

However developing the collection in general; and engineering college libraries in particular, is a process. The collection needs must suit the library mission reflect curriculum. Once the collection is up-to-date and well maintained the next thing is if it satisfies the users or not. There are several challenges and barriers in the process of building the library collection in general and engineering college libraries in particular. In this paper, an attempt is made to test the barriers to the use of library collection and the demographic factors influencing them, with special reference to faculty members of the engineering colleges in Karnataka. The study shows how the demographic factors such as age, sex, designation, education qualifications etc. influencing the use and searching of library collection which is presented in results and discussion below:

Literature Review

There are many studies on the collection development. Some of them are reported here. Butler 2001, discusses a number of cooperative collection development programs [2]. Jones 2004, provides helpful background for university library directors, funding agencies, and other decision makers who want a current, concise statement of the problem of unprocessed special collections backlogs in research libraries around the U.S [3]. The 1998

survey of ARL special collection libraries illustrated the problem of special collections backlogs quantitatively. There are a range of factors that may hinder good-quality research outputs [4]. His study focuses on the matter of research quality in library and information science (LIS) in Pakistan [1]. To test the types of barriers that the researcher believes which hinder the production of quality research in Pakistan, a web-based survey was conducted using a questionnaire consisting of structured and open-ended questions. The respondents were asked to indicate their views on the impact of these barriers on the production of quality research. The study reveals that the lack of critical thinking, a poor research culture, lack of encouragement of research, and inadequate imparting of research skills in LIS education are the most significant barriers. Hence, the present study is new and different from the earlier works on collection building.

Research Objectives

The main research objectives are:

1. To find out the barriers to use library collection of the Mysore region engineering college library (MRECL) users.
2. To examine the relationship between the barriers of using library collection vs. gender.
3. To know the relationship between the barriers of using library collection vs. age.
4. To determine the relationship between the barriers of using library collection vs. designation.
5. To find out the relationship between the barriers of using library collection vs. educational qualifications.

Methodology and Survey Design

The investigator has adopted survey method. The tools for collecting data are a well-structured questionnaire along with Likert's scale. A structured questionnaire was designed for the survey, which was randomly distributed among 1000 engineering college faculties of the Mysore region and 760 (76%) complete questionnaires were received. The data collected through questionnaire were organized and tabulated by using SPSS, LISA, LISTA and *Google Scholar* were used for conducting review of literature.

Scope and Limitation

The study covers faculty members of the engineering college libraries in Mysore region. The faculty members are drawn from various subjects of engineering colleges. Geographically the coverage of the institutions is limited to Mysore Region. Of the 178 engineering colleges in Karnataka, 52 engineering colleges of Karnataka region are covered in the present study.

These colleges come under Visvesvaraya Technological University (VTU), Belagavi. The limitations of the study are only one region is covered and the other three regions are excluded from the scope of the present study.

Only faculty members are taken as sample and others such as administrative, students and research scholars are not included in this study.

Results and Discussion

Below described are the results of the findings of Mysore region engineering college library users are systematically presented in a logical order. There are many barriers to the use library collection such as, lack of knowledge in using library catalogues, lack of information about how to use library resources and tools, lack of time to acquire skills needed to use library resources, less computer systems to access e-resources within the library and the lack of support from library staff.

Barriers of Using Library Collection

The analysis of barriers to use library collection used by the faculty members of engineering college libraries of Karnataka region is presented in the below table. It may be seen from the table that, there is a significant difference ($\chi^2=71.750$; $P<0.000$) in case of the barrier- 'Lack of Knowledge in Using Library Catalogues'. It is observed that many respondents scoring, 195 (25.7%) says 'disagree', 184 (24.2%) of them say 'neither agree nor disagree' and only few accounting 65 (8.6%) of them state 'strongly agree' with a mean value of 2.76 and SD being 1.23. There is a significant difference ($\chi^2=101.947$; $P<0.000$) among the respondents with regard to the barriers- 'Lack of Information about how to Use Library Resources and Tools'. Many respondents scoring 232 (30.5%) say 'disagree'; 176 (23.2%) of them say 'agree'; only 64 (8.4%) of them state 'strongly agree' with a mean value of 2.76 and SD being 1.21. Chi Square results given in the Table 1 reveals that ($\chi^2=121.053$; $P<0.000$) there is a significant difference among Mysore region engineering college library (MRECL) users with regard to the barrier- 'Lack of Time to Acquire Skills Needed to Use Library Resources'. It is observed that many respondents scoring, 209 (27.5%) say 'disagree'; nearly 202 (26.6%) of respondents say 'neither agree nor disagree', and only 75 (9.9%) of them state 'strongly agree' with a mean value of 2.96 and SD being 1.16.

Table 1: Barriers of Using Library Collection.

Sr. No.	Barriers	Responses in Percentage (N=760)					Mean	SD	χ^2	P Value
		1	2	3	4	5				
1	Lack of knowledge in using library catalogues	144 (18.9)	195 (25.7)	184 (24.2)	172 (22.6)	65 (8.6)	2.76	1.23	71.750	0.000
2	Lack of information about how to use library resources and tools	126 (16.6)	232 (30.5)	162 (21.3)	176 (23.2)	64 (8.4)	2.76	1.21	101.947	0.000
3	Lack of time to acquire skills needed to use library resources	81 (10.7)	209 (27.5)	202 (26.6)	193 (25.4)	75 (9.9)	2.96	1.16	121.053	0.000
4	Less computer systems to access e-resources from the library	82 (10.8)	160 (21.1)	162 (21.3)	217 (28.3)	139 (18.3)	3.22	1.26	60.224	0.000
5	Un organized information content	118 (15.5)	208 (27.4)	169 (22.2)	178 (23.4)	87 (11.4)	2.87	1.25	62.382	0.000
6	Lack of support from library staff	236 (31.1)	225 (29.6)	128 (16.8)	114 (15.0)	57 (7.5)	2.38	1.26	154.145	0.000

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, $P \leq 0.050$ - Significant,
 $P > 0.050$ - Not Significant, Numbers in Parentheses Indicates Percentage.

It may be seen from the table that, there is a significant difference ($\chi^2= 60.224$; $P< 0.000$) among the respondents with regard to the users barrier- 'Less Computer Systems to Access e-Resources from the Library'. Many respondents scoring 217 (28.3%) say 'agree', 162 (21.3%) of them say 'neither agree nor disagree', only 82 (10.8%) of them state 'strongly disagree' with a mean value of 3.22 and SD being 1.26.

Chi Square results given in the above table reveal that ($\chi^2= 62.382$; $P< 0.000$) there is a significant difference among MRECL users for the barrier- 'Un Organized Information Content'. It is observed that many respondents scoring, 208 (27.4%) says 'disagree'; 178 (23.4%) of them say 'agree', and only 87 (11.4%) of them state 'strongly agree' with a mean value of 2.87 and SD being 1.25.

There is a significant difference ($\chi^2= 154.145$; $P< 0.000$) among the respondents with regard to the barrier- 'Lack of Support from Library Staff'. Many respondents scoring 236 (31.1%) say 'strongly disagree', 225 (29.6%) of them say 'disagree', only 57 (7.5%) of them state 'strongly agree' with a mean value of 2.38 and SD being 1.26.

Cross Tabulation about Barriers of Using Library Collection vs. Demographic Variables of the Faculty Members

The cross tabulation of four variables of gender, age, educational qualification and designation of MRECL users' barriers of using library collection are presented below:

Barriers of using library collection vs. gender

Cross tabulation about barriers of using library collection vs. gender is presented in the below Table 2. It is well known fact that gender refers to male and female respondents. These respondents have been asked to check on the six different barriers that the users normally may face to barriers of using library collection. They are lack of knowledge in using library catalogues, lack of information about how to use library resources and tools, lack of time to acquire skills needed to use library resources, less computer systems to access e-resources from the library, lack of support from library staff.

1. Lack of knowledge in using library catalogue:

For the barriers, 'Lack of knowledge in using library catalogue vs. gender', among all the categories, 18.9% respondents opted for 'strongly disagree' all those opting for 'disagree' and 'neither agree or nor disagree' scoring, 25.7% and 24.2%, respectively. Those opting for agree and 'strongly agree' constituted 22.6% and 8.6%, respectively.

2. Lack of information about how to use library resources and tools:

For the barriers, 'Lack of information about how to use library resources and tools vs. gender' among all the categories, 16.6% respondents opted for 'strongly disagree' all those opting for 'disagree' and 'neither agree or nor disagree' scoring, 30.5% and 21.3% respectively. Those opting for 'agree' and 'strongly agree' constituted 23.2% and 8.4% respectively.

3. Lack of time to acquire skills needed to use library resources:

For the barriers, 'Lack of time to acquire skills needed to use library resources vs. gender', among all the categories, 10.7% respondents opted for 'strongly disagree' all those opting for 'disagree' and 'neither agree or nor disagree' scoring, 27.5% and 26.6% respectively. Those opting for agree and 'strongly agree' constituted 25.4% and 9.9% respectively.

4. Less computer systems to access e-resources from the library:

For the barriers, 'Less computer systems to access e-resources from the library vs. gender', among all the categories, 10.8% respondents opted for 'strongly disagree' all those opting for 'disagree' and 'neither agree or nor disagree' scoring, 21.1% and 21.3% respectively. Those opting for 'agree' and 'strongly agree' constituted 28.6% and 18.3% respectively.

5. Unorganized information content:

For the barrier, 'Unorganized information content vs. gender', among all the categories, 15.5% respondents opted for 'strongly disagree' all those opting for 'disagree' and 'neither agree or nor disagree' scoring, 27.4% and 22.2% respectively. Those opting for agree and 'strongly agree' constituted 23.4% and 11.4%, respectively.

Table 2: Barriers Towards Using Library Collection by the Faculty Members vs. Gender.

Sr. No.	Barriers	Barriers of Library Collection vs. Gender					
		Male	Female	Total	χ^2	P Value	
1.	Lack of knowledge in using library catalogue.	Strongly disagree	77 (16.9%)	67 (22.0%)	144 (18.9%)	5.246	0.263
		Disagree	122 (26.8%)	73 (23.9%)	195 (25.7%)		
		Neither agree or not disagree	119 (26.2%)	65 (21.3%)	184 (24.2%)		
		Agree	99 (21.8%)	73 (23.9%)	172 (22.6%)		
		Strongly agree	38 (8.4%)	27 (8.9%)	65 (8.6%)		
2.	Lack of information about how to use library resources and tools.	Strongly disagree	69 (15.2%)	57 (18.7%)	126 (16.6%)	11.267	0.024
		Disagree	140 (30.8%)	92 (30.2%)	232 (30.5%)		
		Neither agree or not disagree	112 (24.6%)	50 (16.4%)	162 (21.3%)		
		Agree	93 (20.4%)	83 (27.2%)	176 (23.2%)		
		Strongly agree	41 (9.0%)	23 (7.5%)	64 (8.4%)		
3.	Lack of time to acquire skills needed to use library. .resources.	Strongly disagree	46 (10.1%)	35 (11.5%)	81 (10.7%)	2.001	0.736
		Disagree	124 (27.3%)	85 (27.9%)	209 (27.5%)		
		Neither agree or not disagree	129 (28.4%)	73 (23.9%)	202 (26.6%)		
		Agree	112 (24.6%)	81 (26.6%)	193 (25.4%)		
		Strongly agree	44 (9.7%)	31 (10.2%)	75 (9.9%)		
4.	Less computer systems to access e-resources from the library.	Strongly disagree	43 (9.5%)	39 (12.8%)	82 (10.8%)	2.734	0.603
		Disagree	93 (20.4%)	67 (22.0%)	160 (21.1%)		
		Neither agree or not disagree	100 (22.0%)	62 (20.3%)	162 (21.3%)		
		Agree	133 (29.2%)	84 (27.5%)	217 (28.6%)		
		Strongly agree	86 (18.9%)	53 (17.4%)	139 (18.3%)		
5.	Un organized information content.	Strongly disagree	69 (15.2%)	49 (16.1%)	118 (15.5%)	4.605	0.330
		Disagree	114 (25.1%)	94 (30.8%)	208 (27.4%)		
		Neither agree or not disagree	106 (23.3%)	63 (20.7%)	169 (22.2%)		
		Agree	115 (25.3%)	63 (20.7%)	178 (23.4%)		
		Strongly agree	51 (11.2%)	36 (11.8%)	87 (11.4%)		
6.	Lack of support from library staff.	Strongly disagree	132 (29.0%)	104 (34.1%)	236 (31.1%)	6.237	0.182
		Disagree	131 (28.8%)	94 (30.8%)	225 (29.6%)		
		Neither agree or not disagree	88 (19.3%)	40 (13.1%)	128 (16.8%)		
		Agree	68 (14.9%)	46 (15.1%)	114 (15.0%)		
		Strongly agree	36 (7.9%)	21 (6.9%)	57 (7.5%)		
Total		455 (100.0%)	305 (100.0%)	760 (100.0%)			

6. Lack of support from library staff:

For the barriers, 'lack of support from library staff' vs gender', among all the categories, 31.1% respondents opted for 'strongly disagree' all those opting for 'disagree' and 'neither agree or nor disagree' scoring, 29.6% and 16.8%, respectively. Those opting for agree and 'strongly agree' constituted 15.0% and 7.5% respectively.

Barriers towards using Library Collection vs.

Age

Cross Tabulation about barriers towards using library collection vs age is presented in the Table 3. It is a well-known fact that gender refers to male and female respondents. These respondents have been asked to check on the six different variables that the users normally may face towards using library collection.

1. Lack of knowledge in using library catalogue:

For the barrier, 'Lack of knowledge in using library catalogue vs. age', among all the categories, 18.9% respondents opted for 'strongly disagree' all those opting for 'disagree' and 'neither agree or nor disagree' scoring, 25.7% and 24.2% respectively. Those opting for 'agree' and 'strongly agree' constituted 22.6% and 8.6% respectively.

2. Lack of information about how to use library resources and tools:

For the barrier, 'Lack of information about how to use library resources and tools vs. age', among all the categories, 16.6% respondents opted for 'strongly disagree' all those opting for 'disagree' and 'neither agree or nor disagree' scoring, 30.5% and 21.3% respectively. Those opting for agree and 'strongly agree' constituted 23.2% and 8.4% respectively.

3. Lack of time to acquire skills needed to use library resources:

For the barrier, 'Lack of time to acquire skills needed to use library resources vs. age', among all the categories, 10.7% respondents opted for 'strongly disagree' all those opting for 'disagree' and 'neither agree or nor disagree' scoring, 27.5% and 26.6% respectively. Those opting for 'agree' and 'strongly agree' constituted 25.4% and 9.0% respectively.

4. Less computer systems to access e-resources from the library:

For the barrier, 'Less computer systems to access e-resources from the library vs. age', among all the categories, 10.8% respondents

opted for 'strongly disagree' all those opting for 'disagree' and 'neither agree or nor disagree' scoring, 21.1% and 21.3% respectively. Those opting for 'agree' and 'strongly agree' constituted 28.6% and 18.3% respectively.

5. Unorganized information content:

For the barrier, 'un organized information content vs. age', 15.5% respondents opted for 'strongly disagree' all those opting for 'disagree' and 'neither agree or nor disagree' scoring, 27.4% and 22.2%, respectively. Those opting for 'agree' and 'strongly agree' constituted 23.4% and 11.4% respectively.

6. Lack of support from library staff:

For the barrier, 'Lack of Support from Library Staff Vs Age' among all the categories, 31.1% respondents opted for 'strongly disagree' all those opting for 'disagree' and 'neither agree or nor disagree' constituted 29.6% and 16.8% respectively. Those opting for 'agree' and 'strongly agree' constituted 15.0% and 7.5% respectively.

Barriers of using library collection vs. designation:

Designation is another demographic factor which is cross tabulated with that of barriers of using library collection. Cross Tabulation about of barriers towards using library collection versus Designation is presented in the below Table 4.

1. Lack of knowledge in using library catalogue:

For the barriers, 'lack of knowledge in using library catalogue vs. designation', among all the categories, 18.9% respondents opted for 'strongly disagree' all those opting for 'disagree' and 'neither agree or nor disagree' scoring, 25.7% and 24.2%, respectively. Those opting for 'agree' and 'strongly agree' constituted 22.6% and 8.6% respectively.

2. Lack of information about how to use library resources and tools:

For the barrier, 'Lack of Information about how to use library resources and tools vs. designation', among all the categories, 16.6% respondents opted for 'strongly disagree' all those opting for 'disagree' and 'neither agree or nor disagree' scoring, 50.5% and 21.3%, respectively. Those opting for 'agree' and 'strongly agree' constituted 23.2% and 8.4% respectively.

Table 3: Barriers Towards Using Library Collection by Faculty Members vs. Age.

Sr. No.	Barriers	Barriers of library collection Vs Age									χ^2	P Value
		<25	26-30	31-35	36-40	41-45	46-50	51-55	Total			
1	Lack of knowledge in using library catalogue	Strongly disagree	29 (18.8%)	78 (19.5%)	19 (15.6%)	11 (25.6%)	2 (14.3%)	4 (18.2%)	1 (20.0%)	144 (18.9%)	25.951	.356
		Disagree	42 (27.3%)	93 (23.2%)	34 (27.9%)	14 (32.6%)	7 (50.0%)	6 (27.3%)	0 (0.0%)	195 (25.7%)		
		Neither agree or not disagree	31 (20.1%)	106 (26.5%)	30 (24.6%)	11 (25.6%)	2 (14.3%)	5 (22.7%)	1 (20.0%)	184 (24.2%)		
		Agree	41 (26.6%)	87 (21.8%)	26 (21.3%)	5 (11.6%)	3 (21.4%)	4 (18.2%)	3 (60.0%)	172 (22.6%)		
		'Strongly agree'	11 (7.1%)	36 (9.0%)	13 (10.7%)	2 (4.7%)	0 (0.0%)	3 (13.6%)	0 (0.0%)	65 (8.6%)		
2	Lack of information about how to use library resources and tools	Strongly disagree	31 (20.1%)	64 (16.0%)	12 (9.8%)	12 (27.9%)	2 (14.3%)	4 (18.2%)	1 (20.0%)	126 (16.6%)	45.348	.005
		Disagree	40 (26.0%)	122 (30.5%)	42 (34.4%)	13 (30.2%)	7 (14.3%)	7 (31.8%)	1 (20.0%)	232 (30.5%)		
		Neither agree or not disagree	19 (12.3%)	91 (22.8%)	30 (24.6%)	14 (32.6%)	3 (21.4%)	6 (27.3%)	0 (0.0%)	162 (21.3%)		
		Agree	52 (33.8%)	86 (21.5%)	28 (23.0%)	2 (4.7%)	0 (0.0%)	2 (9.1%)	3 (60.0%)	176 (23.2%)		
		Strongly agree	12 (7.8%)	37 (9.2%)	10 (8.2%)	2 (4.7%)	2 (14.3%)	3 (13.6%)	0 (0.0%)	64 (8.4%)		
3	Lack of time to acquire skills needed to use library resources	Strongly disagree	13 (8.4%)	48 (12.0%)	10 (8.2%)	6 (14.0%)	1 (7.1%)	2 (9.1%)	1 (20.0%)	81 (10.7%)	23.089	0.515
		Disagree	45 (29.2%)	104 (26.0%)	36 (29.5%)	13 (30.2%)	6 (42.9%)	4 (18.2%)	1 (20.0%)	209 (27.5%)		
		Neither agree or not disagree	41 (26.6%)	97 (24.2%)	39 (32.0%)	14 (32.6%)	6 (42.9%)	5 (22.7%)	0 (0.0%)	202 (26.6%)		
		Agree	37 (24.0%)	109 (27.2%)	28 (23.0%)	7 (16.3%)	1 (7.1%)	8 (36.4%)	3 (60.0%)	193 (25.4%)		
		Strongly agree	18 (11.7%)	42 (10.5%)	9 (7.4%)	3 (7.0%)	0 (0.0%)	3 (13.6%)	0 (0.0%)	75 (9.9%)		
4	Less computer systems to access e-resources from the library	Strongly disagree	12 (7.8%)	33 (8.2%)	21 (17.2%)	8 (18.6%)	6 (42.9%)	2 (9.1%)	0 (0.0%)	82 (10.8%)	68.833	0.000
		Disagree	32 (20.8%)	88 (22.0%)	25 (20.5%)	8 (18.6%)	1 (7.1%)	6 (27.3%)	0 (0.0%)	160 (21.1%)		
		Neither agree or not disagree	27 (17.5%)	74 (18.5%)	35 (28.7%)	14 (32.6%)	4 (28.6%)	3 (13.6%)	5 (100%)	162 (21.3%)		
		Agree	55 (35.7%)	122 (30.5%)	22 (18.0%)	8 (18.6%)	2 (14.3%)	8 (36.4%)	0 (0.0%)	217 (28.6%)		
		Strongly agree	28 (18.2%)	83 (20.8%)	19 (15.6%)	5 (11.6%)	1 (7.1%)	3 (13.6%)	0 (0.0%)	139 (18.3%)		
5	Un organized information content	Strongly disagree	25 (16.2%)	54 (13.5%)	14 (11.5%)	11 (25.6%)	6 (42.9%)	7 (31.8%)	1 (20.0%)	118 (15.5%)	52.126	.001
		Disagree	41 (26.6%)	104 (26.0%)	39 (32.0%)	13 (30.2%)	1 (7.1%)	9 (40.9%)	1 (20.0%)	208 (27.4%)		
		Neither agree or not disagree	24 (15.6%)	108 (27.0%)	23 (18.9%)	4 (9.3%)	5 (35.7%)	4 (18.2%)	1 (20.0%)	169 (22.2%)		
		Agree	52 (33.8%)	85 (21.2%)	27 (22.1%)	10 (23.3%)	1 (7.1%)	1 (4.5%)	2 (40.0%)	178 (23.4%)		
		Strongly agree	12 (7.8%)	49 (12.2%)	19 (15.6%)	5 (11.6%)	1 (7.1%)	1 (4.5%)	0 (0.0%)	87 (11.4%)		
6	Lack of support from library staff	Strongly disagree	40 (26.0%)	120 (30.0%)	43 (35.2%)	12 (27.9%)	7 (50.0%)	12 (54.5%)	2 (40.0%)	236 (31.1%)	41.737	.014
		Disagree	50 (32.5%)	120 (30.0%)	33 (27.0%)	12 (27.9%)	5 (35.7%)	4 (18.2%)	1 (20.0%)	225 (29.6%)		
		Neither agree or not disagree	19 (12.3%)	72 (18.0%)	20 (16.4%)	12 (27.9%)	0 (0.0%)	3 (13.6%)	2 (40%)	128 (16.8%)		
		Agree	39 (25.3%)	49 (12.2%)	18 (14.8%)	4 (9.3%)	2 (14.3%)	2 (9.1%)	0 (0.0%)	114 (15.0%)		
		Strongly agree	6 (3.9%)	39 (9.8%)	8 (6.6%)	3 (7.0%)	0 (0.0%)	1 (4.5)	0 (0.0%)	57 (7.5%)		
Total		154 (100%)	400 (100%)	122 (100%)	43 (100%)	14 (100%)	22 (100%)	5 (100%)	760 (100%)			

3. Lack of time to acquire skills needed to use library resources:

For the barrier, 'Lack of time to acquire skills needed to use library resources vs. designation', among all the categories, 10.7% respondents opted for 'strongly disagree' all those opting for 'disagree' and 'neither agree or nor disagree' scoring, 27.5% and 26.6%, respectively. Those opting for 'agree' and 'strongly agree' constituted 25.4% and 9.9%, respectively.

4. Less computer systems to access e-resources from the library:

For the barrier, 'Less computer systems to access e-resources from the library vs. designation', among all the categories, 10.8% respondents opted for 'strongly disagree' all those opting for 'disagree' and 'neither agree or nor disagree' scoring, 21.1% and 21.3% respectively. Those opting for 'agree' and 'strongly agree' constituted 28.6% and 18.3% respectively.

Table 4: Barriers Towards Using Library Collection vs. Designation.

Sr. No.	Barriers	Barriers of Library Collection Vs Designation					χ^2	P Value	
		Asst. Professor	Associate Professor	Professor	Others	Total			
1.	Lack of knowledge in using library catalogue.	Strongly disagree	130 (19.5%)	11 (16.4%)	3 (14.3%)	0 (0.0%)	144 (18.9%)	15.556	0.212
		Disagree	168 (25.1%)	22 (32.8%)	4 (19.0%)	1 (25.0%)	195 (25.7%)		
		Neither agree or not disagree	162 (24.3%)	12 (17.9%)	9 (42.9%)	1 (25.0%)	184 (24.2%)		
		Agree	156 (23.4%)	11 (16.4%)	4 (19.0%)	1 (25.0%)	172 (22.6%)		
		Strongly agree	52 (7.8%)	11 (16.4%)	1 (4.8%)	1 (25.0%)	65 (8.6%)		
2.	Lack of information about how to use library resources and tools.	Strongly disagree	105 (15.7%)	18 (26.9%)	3 (14.3%)	0 (0.0%)	126 (16.6%)	16.335	0.176
		Disagree	207 (31.0%)	20 (29.9%)	4 (19.0%)	1 (25.0%)	232 (30.5%)		
		Neither agree or not disagree	139 (20.8%)	13 (19.4%)	9 (42.9%)	1 (25.0%)	162 (21.3%)		
		Agree	162 (24.3%)	9 (13.4%)	4 (19.0%)	1 (25.0%)	176 (23.2%)		
		Strongly agree	55 (8.2%)	7 (10.4%)	1 (4.8%)	1 (25.0%)	64 (8.4%)		
3.	Lack of time to acquire skills needed to use library resources.	Strongly disagree	72 (10.8%)	9 (13.4%)	0 (0.0%)	0 (0.0%)	81 (10.7%)	21.768	0.040
		Disagree	182 (27.2%)	23 (34.3%)	3 (14.3%)	1 (25.0%)	209 (27.5%)		
		Neither agree or not disagree	178 (26.6%)	10 (14.9%)	13 (61.9%)	1 (25.0%)	202 (26.6%)		
		Agree	172 (25.7%)	16 (23.9%)	4 (19.0%)	1 (25.0%)	193 (25.4%)		
		Strongly agree	64 (9.6%)	9 (13.4%)	1 (4.8%)	1 (25.0%)	75 (9.9%)		
4.	Less computer systems to access e-resources from the library.	Strongly disagree	71 (10.6%)	11 (16.4%)	0 (0.0%)	0 (0.0%)	82 (10.8%)	26.197	0.010
		Disagree	142 (21.3%)	16 (23.9%)	1 (4.8%)	1 (25.0%)	160 (21.1%)		
		Neither agree or not disagree	138 (20.7%)	12 (17.9%)	12 (57.1%)	0 (0.0%)	162 (21.3%)		
		Agree	198 (29.6%)	14 (20.9%)	3 (14.3%)	2 (50.0%)	217 (28.6%)		
		Strongly agree	119 (17.8%)	14 (20.9%)	5 (23.8%)	1 (25.0%)	139 (18.3%)		
5.	Un organized information content.	Strongly disagree	101 (15.1%)	15 (22.4%)	2 (9.5%)	0 (0.0%)	118 (15.5%)	23.873	0.021
		Disagree	179 (26.8%)	24 (35.8%)	3 (14.3%)	2 (50.0%)	208 (27.4%)		
		Neither agree or not disagree	149 (22.3%)	7 (10.4%)	11 (52.4%)	2 (50.0%)	169 (22.2%)		
		Agree	161 (24.1%)	14 (20.9%)	3 (14.3%)	0 (0.0%)	178 (23.4%)		
		Strongly agree	78 (11.7%)	7 (10.4%)	2 (9.5%)	0 (0.0%)	87 (11.4%)		
6.	Lack of support from library staff.	Strongly disagree	197 (29.5%)	33 (49.3%)	4 (19.0%)	2 (50.0%)	236 (31.1%)	25.934	0.011
		Disagree	207 (31.0%)	13 (19.4%)	3 (14.3%)	2 (50.0%)	225 (29.6%)		
		Neither agree or not disagree	108 (16.2%)	12 (17.9%)	8 (38.1%)	0 (0.0%)	128 (16.8%)		
		Agree	106 (15.9%)	5 (7.5%)	3 (14.3%)	0 (0.0%)	114 (15.0%)		
		Strongly agree	50 (7.5%)	4 (6.0%)	3 (14.3%)	0 (0.0%)	57 (7.5%)		
Total		668 (100.0%)	67 (100.0%)	21 (100.0%)	4 (100.0%)	760 (100.0%)			

5. Unorganized information content:

For the barrier, 'un organized information content Vs Designation', among all the categories, 15.5% respondents opted for 'strongly disagree' all those opting for 'disagree' and 'neither agree or nor disagree' scoring, 27.4% and 22.2%, respectively. Those opting for 'agree' and 'strongly agree' constituted 23.4% and 11.4%, respectively.

6. Lack of support from library staff:

For the barrier, 'lack of support from library staff vs. Designation', among all the categories, 31.1% respondents opted for 'strongly disagree' all those opting for 'disagree' and 'neither agree or nor disagree' scoring, 29.6% and 16.8%, respectively. Those opting for agree and 'strongly agree' constituted 15.0% and 7.5%, respectively.

Barriers towards Using Library Collection vs. Education Qualification

Education qualification is another demographic factor which is cross tabulated with that of barriers of using library collection. Cross Tabulation about barriers of using library collection education vs. qualification is presented in the Table 5.

1. Lack of Knowledge in Using Library Catalogue:

For the barrier, 'Lack of Knowledge in Using Library Catalogue vs. Education Qualification', among all the categories of respondents, 18.9% respondents opted for 'strongly disagree' all those opting for 'disagree' and 'neither agree or nor disagree' scoring, 25.7% and 24.2% respectively. Those opting for agree and 'strongly agree' constituted 22.6% and 8.6%, respectively.

2. Lack of information about how to use library resources and tools:

For the barriers, 'lack of information about how to use library resources and tools vs. education qualification', among all the categories of respondents, 16.6% respondents opted for 'strongly disagree' all those opting for 'disagree' and 'neither agree or nor disagree' scoring, 30.5% and 21.3%,

respectively. Those opting for 'agree' and 'strongly agree' constituted 23.2% and 8.4% respectively.

3. Lack of time to acquire skills needed to use library resources:

For the barrier, 'lack of time to acquire skills needed to use library resources' vs. education qualification', among all the categories of respondents, 10.7% respondents opted for 'strongly disagree' all those opting for 'disagree' and 'neither agree or nor disagree' c scoring, 27.5% and 26.6%, respectively. Those opting for 'agree' and 'strongly agree' constituted 25.4% and 9.9% respectively.

4. Less computer systems to access e-resources from the library:

For the barrier, 'less computer systems to access e-resources from the library vs. education qualification', among all the categories of respondents, 10.8% respondents opted for 'strongly disagree' all those opting for 'disagree' and 'neither agree or nor disagree' scoring, 21.1% and 21.3%, respectively. Those opting for 'agree' and 'strongly agree' constituted 28.6% and 18.3% respectively.

5. Unorganized information content:

For the barrier, 'unorganized information content vs education qualification', among all the categories of respondents, 15.5% respondents opted for 'strongly disagree' all those opting for 'disagree' and 'neither agree or nor disagree' scoring, 27.4% and 22.2% respectively. Those opting for 'agree' and 'strongly agree' constituted 23.4% and 11.4% respectively.

6. Lack of support from library staff:

For the barrier, 'lack of support from library staff vs. education qualification', among all the categories of respondents, 31.1% respondents opted for 'strongly disagree' all those opting for 'disagree' and 'neither agree or nor disagree' scoring, 29.6% and 16.8%, respectively. Those opting for 'agree' and 'strongly agree' constituted 15.0% and 7.5%, respectively.

Table 5: Barriers of Using Library Collection vs. Education Qualification.

Sr. No.	Barriers	Barriers of Library Collection Vs Education Qualification						χ^2	P Value	
		BE	BE., M Tech.	B.E., M Tech., PhD	MSc	Others	Total			
1	Lack of knowledge in using library catalogue.	Strongly disagree	5 (6.3%)	118 (19.5%)	18 (28.6%)	2 (20.0%)	1 (50.0%)	144 (18.9%)	41.961	.000
		Disagree	32 (40.5%)	149 (24.6%)	10 (15.9%)	4 (40.0%)	0 (0.0%)	195 (25.7%)		
		Neither agree or not disagree	12 (15.2%)	159 (26.2%)	13 (20.6%)	0 (0.0%)	0 (0.0%)	184 (24.2%)		
		Agree	28 (35.4%)	127 (21.0%)	13 (20.6%)	3 (30.0%)	1 (50.0%)	172 (22.6%)		
		Strongly agree	2 (2.5%)	53 (8.7%)	9 (14.3%)	1 (10.0%)	0 (0.0%)	65 (8.6%)		
2	Lack of information about how to use library resources and tools.	Strongly disagree	2 (2.5%)	106 (17.5%)	16 (25.4%)	2 (20.0%)	0 (0.0%)	126 (16.6%)	23.143	.110
		Disagree	30 (38.0%)	185 (30.5%)	12 (19.0%)	4 (40.0%)	1 (50.0%)	232 (30.5%)		
		Neither agree or not disagree	15 (19.0%)	131 (21.6%)	15 (23.8%)	1 (10.0%)	0 (0.0%)	162 (21.3%)		
		Agree	24 (30.4%)	136 (22.4%)	13 (20.6%)	2 (20.0%)	1 (50.0%)	176 (23.2%)		
		Strongly agree	8 (10.1%)	48 (7.9%)	7 (11.1%)	1 (10.0%)	0 (0.0%)	64 (8.4%)		
3	Lack of time to acquire skills needed to use library resources.	Strongly disagree	5 (6.3%)	62 (10.2%)	12 (19.0%)	2 (20.0%)	0 (0.0%)	81 (10.7%)	20.805	.186
		Disagree	29 (36.7%)	165 (27.2%)	12 (19.0%)	2 (20.0%)	1 (50.0%)	209 (27.5%)		
		Neither agree or not disagree	14 (17.7%)	169 (27.9%)	17 (27.0%)	2 (20.0%)	0 (0.0%)	202 (26.6%)		
		Agree	25 (31.6%)	150 (24.8%)	13 (26.6%)	4 (40.0%)	1 (50.0%)	193 (25.4%)		
		Strongly agree	6 (7.6%)	60 (9.9%)	9 (14.3%)	0 (0.0%)	0 (0.0%)	75 (9.9%)		
4	Less computer systems to access e-resources from the library.	Strongly disagree	1 (1.3%)	65 (10.7%)	14 (22.2%)	2 (20.0%)	0 (0.0%)	82 (10.8%)	37.212	.002
		Disagree	26 (32.9%)	122 (20.1%)	10 (15.9%)	1 (10.0%)	1 (50.0%)	160 (21.1%)		
		Neither agree or not disagree	12 (15.2%)	135 (22.3%)	13 (20.6%)	2 (20.0%)	0 (0.0%)	162 (21.3%)		
		Agree	33 (41.8%)	163 (26.9%)	16 (25.4%)	4 (40.0%)	1 (50.0%)	217 (28.6%)		
		Strongly agree	7 (8.9%)	121 (20.0%)	10 (15.9%)	1 (10.0%)	0 (0.0%)	139 (18.3%)		
5	Un organized information content.	Strongly disagree	3 (3.8%)	97 (16.0%)	16 (25.4%)	2 (20.0%)	0 (0.0%)	118 (15.5%)	28.343	.029
		Disagree	27 (34.2%)	167 (27.6%)	10 (15.9%)	2 (20.0%)	2 (100.0%)	208 (27.4%)		
		Neither agree or not disagree	20 (25.3%)	131 (21.6%)	14 (22.2%)	4 (40.0%)	0 (0.0%)	169 (22.2%)		
		Agree	24 (30.4%)	138 (22.8%)	14 (22.2%)	2 (20.0%)	0 (0.0%)	178 (23.4%)		
		Strongly agree	5 (6.3%)	73 (12.0%)	9 (14.3%)	0 (0.0%)	0 (0.0%)	87 (11.4%)		
6	Lack of support from library staff.	Strongly disagree	7 (8.9%)	202 (33.3%)	24 (38.1%)	2 (20.0%)	1 (50.0%)	236 (31.1%)	62.414	.000
		Disagree	30 (38.0%)	180 (29.7%)	11 (17.5%)	3 (30.0%)	1 (50.0%)	225 (29.6%)		
		Neither agree or not disagree	13 (16.5%)	102 (16.8%)	13 (20.6%)	0 (0.0%)	0 (0.0%)	128 (16.8%)		
		Agree	29 (36.7%)	74 (12.2%)	8 (12.7%)	3 (30.0%)	0 (0.0%)	114 (15.0%)		
		Strongly agree	0 (0.0%)	48 (7.9%)	7 (11.1%)	2 (20.0%)	0 (0.0%)	57 (7.5%)		
Total		79 (100%)	606 (100%)	63 (100%)	10 (100%)	2 (100%)	760 (100%)			

CONCLUSION

On the basis of the survey, it may be concluded that the Mysore region engineering college libraries are making an effort to do well in overcoming the barriers towards using library collection. It may be noted that very few authors have studied the barriers of using library collection vs. demographic factors. In this study, four demographic factors such as gender, age, designation and education qualifications are correlated with that of the barriers towards the use of library collection such as the lack of knowledge in using library catalogue, lack of information about how to use library resources and tools, lack of time to acquire skills needed to use library resources, less computer systems to access e-resources from the library, lack of support from library staff. The results of the study reveal that there is a significant difference ($\chi^2=60.224$; $P<0.000$) among the respondents with regard to the users barrier- 'Less computer systems to access e-resources from the library'. Hence, the libraries have to concentrate on improving the number of systems in the lab and efforts may be made in providing library orientation to the users.

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