Adequacy of Library Collection and User Satisfaction in Mysore Region Engineering College Libraries (MRELC) in Karnataka: A Study

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Abstract

Libraries are the heart of all the academic libraries, which assists to conduct research and teaching programs successfully. Engineering college libraries are no less in this direction. The present study explores to identify the adequacy of library collection and user satisfaction in Mysore region engineering college libraries. Adequacy is based on quantity, quality and accuracy of the collection. This will automatically lead to user satisfaction. Thus, both adequacy of library collection and user satisfaction are directly related to each other. The sample is faculty members of Mysore region engineering college libraries. A total of 1000 questionnaires were distributed to all the faculty members of these colleges. A sum of 760 responses was received. Of all the types of adequate collection, in case of 'Text books' there is significant differences (χ^2=593.645; P<.000) are more in number scoring 389(51.2%) of MRECL users say 'Adequately' with highest mean value of 3.93 SD being .90. and so also the satisfaction of use of 'Text books' where significant differences (χ^2=619.724; P<.000) more in number, scoring 403(53.0%) of MRECL users, who say 'satisfied' with highest mean value of 3.87 SD being 1.02. The major contribution of this survey is that, the results help in strengthen the adequacy of the Library collection of Mysore region engineering college libraries and to can lead to higher user satisfaction levels.

Keywords: *Adequacy of library collection, Users satisfaction, Engineering college libraries, Mysore region, Karnataka*

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INTRODUCTION

A library adequately equipped with good books and other types of resources in all subjects of the engineering colleges chosen for the study will go along way for the progress of teaching and research. The role of a academic library in this regard is unique as it collects, organizes and disseminates information to the faculty members, research scholars and students besides supporting new knowledge creation. The up-to-date contents in courses the continuous academic growth and competence of faculty members and the quality of learning environment depend on, how effective a library is in identifying and connecting information on current developments in various subject fields.

However, in order to satisfy the diverse information needs and interests of the academic community in general and engineering colleges in particular, the library collection must be adequate in terms of quantity, quality and currency. The collection must within the reach and easily accessible to the users. The quality and currency of collection will have positive impact. This will obviously lead to user satisfaction. Hence adequacy of library collection and user satisfaction is related to each other.

Review of Studies on Adequacy of Library Collection and User Satisfaction
There are very few studies which talk about this subject matter. However, authors like Munshi (1997) has studies adequacy of Dhaka university library collection among faculty members of Dhaka university library [1]. Sivathaasan (2013) has also studies the impact of library collection on user satisfaction and given suggestions to improve the collection [2]. Williams & Fletcher (2006) have

examined the print sources used by graduate students in engineering. The results have been used as a guide book to develop library collection. They are of the view that citation studies are useful in building core journal and in the proper allocations of journals and monographs [3].

The United Kingdom Research Reserve (UKRR) conducted a pilot project focusing on storage of print media for libraries. Crawford (2008) has examined how the use of print journals is affected by increasing use of electronic journals [4]. The UKRR project is designed to protect and provide access to printed research media for use in academic libraries by creating a shared collection that includes British Library resources, allowing libraries participating in the project to reduce storage space by removing low-use journals and providing electronic access to documents. Another study by Sorensen (2009) states that, academic libraries are selecting to discard or place in storage print journals that are now accessible online [5]. Sammonds and Housewright (2011) discuss how academic librarians are struggling balance between patron needs, budget pressures and the library's mission to preserve materials in the age of mixed digital and print collections [6].

Research Objectives
The main research objectives are:
a) To examine the adequacy of library collection in Mysore region engineering college libraries.
b) To determine the user satisfaction about library collection in Mysore region engineering college libraries.
c) To realise the user satisfaction about journal collections in Mysore region engineering college libraries.

Scope and Limitation
The scope of study centres on the use of collection development in Mysore region engineering college libraries of the Visvesvaraya Technological University (VTU), at Karnataka state, India. Geographically the coverage of the institutions is limited to Mysore Region which consists of 11 districts. Out of them only 11 districts consisting of 52 engineering colleges are

chosen as sample for 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 all engineering 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 etc.

Methodology and Survey Design
The present study started with literature search from Library and Information Science Abstract (LISA) and Library and Information Science and Technology Abstract (LISTA) database, Google Scholar, and Emerald Insight. Some important books published by American Library Association (ALA) Johnson (2004) were also consulted to design the questionnaire. A well design questionnaire was distributed to 47 engineering colleges of Mysore region, Visvesvaraya Technological University (VTU), at Karnataka state, India. A total of 1000 questionnaires were distributed to all the faculty members of these colleges. A sum of 760 responses was received [7].

RESULTS AND DISCUSSIONS
The results and discussion of the present study are given in the following paragraphs in a systematic manner.

Adequacy of Library Collection
The collection of engineering college libraries measured by the number of text books, reference books, general books, periodicals etc. However, in order to satisfy the diverse information needs and interests of the academic community, the library collection must be adequate in terms of quantity, quality and currency. The collection must also be accessible to the community. The provision of quality information will invariably have positive impact on the learning environment. However, if the quality of collection to be provided must not be left to be desired, it must be realized from time to time.

Libraries procure different kinds of reading materials for their users, but they must also aim at the sufficiency and adequacy of the

library collection to fulfil the needs of the users.The library collections are in the form of General books, Text books, Reference books, Periodicals, Report, Patent/Standards, Theses / Dissertation, Seminar/Conference paper, Maps/Diagrams/Charts, etc. and Non book materials. The analysis of adequacy of library collection used by the respondents is presented in Table 1. There is a significant difference (χ^2=623.447; P<.000) in adequacy of 'General Books'. Many respondents scoring, 411(54.1%) say 'adequately'. About 164(21.6%) of them say 'somewhat inadequate' and only few accounting 29(53.8%) of them state 'very inadequate' with a mean value of 3.67 and SD being .92.

There is a significant difference (χ^2=593.645; P<.000) among the respondents with regard to the adequacy of 'Text books'. Many respondents scoring 389(51.2%) say

'adequately', nearly 196(25.8%) of them say 'very adequately', and only few accounting 16(2.1%) of them state 'very inadequate' with a mean value of 4.17 and SD being.93. Chi Square results given in the Table 1 reveal that (χ^2=515.211; P<.000) there is a significant difference among MRECL users in the adequacy of 'Reference Books'. It is observed that many respondents scoring 382(50.3%) says 'adequately'; 160(21.1%) of respondents say 'very adequately', only few accounting 26(3.4%) of them state 'very inadequate' with a mean value of 3.78 and SD being .97.

There is a significant difference (χ^2=389.316; P<.000) in case of adequacy of 'Periodicals'. Many respondents scoring, 347(45.7%) say 'adequately', nearly 195(25.7%) of them say 'somewhat inadequate' and only 58(7.6%) of them state 'very inadequate' with a mean value of 3.43 and SD being 1.06.

Table 1: Adequacy of Library Collection.

S/N	Parameter	Responses in Percentage (N=760)					Mean	SD	χ^2	P Value
		1	2	3	4	5				
1	General books	29 (3.8)	51 (6.7)	164 (21.6)	411 (54.1)	105 (13.8)	3.67	.92	623.447	.000
2	Text books	16 (2.1)	40 (5.3)	119 (15.7)	389 (51.2)	196 (25.8)	3.93	.90	593.645	.000
3	Reference books	26 (3.4)	56 (7.4)	136 (17.9)	382 (50.3)	160 (21.1)	3.78	.97	515.211	.000
4	Periodicals	58 (7.6)	73 (9.6)	195 (25.7)	347 (45.7)	87 (11.4)	3.43	1.06	389.316	.000
5	Report	65 (8.6)	83 (10.9)	233 (30.7)	304 (40.0)	75 (9.9)	3.31	1.07	315.289	.000
6	Patent/Standards	114 (15.0)	148 (19.5)	198 (26.1)	236 (31.1)	64 (8.4)	2.98	1.20	120.895	.000
7	Theses / Dissertation	100 (13.2)	145 (19.1)	188 (24.7)	259 (34.1)	68 (8.9)	3.06	1.18	148.382	.000
8	Seminar/Conference paper	80 (10.5)	128 (16.8)	210 (27.6)	270 (35.5)	72 (9.5)	3.16	1.13	193.737	.000
9	Maps/Diagrams/Charts, etc.	92 (12.1)	129 (17.0)	206 (27.1)	266 (35.0)	67 (8.8)	3.11	1.15	179.382	.000
10	Non book materials	89 (11.7)	129 (17.0)	200 (26.3)	273 (35.9)	69 (9.1)	3.13	1.15	186.395	.000

Key: 1 – Very inadequate 2 – Inadequate, 3 – Somewhat inadequate, 4 – Adequately, 5 – Very adequately, SD = Standard deviation, N=Number of Respondents, χ^2 = Chi-Square, P = Probability, P≤.050 – Significant, P > .050 – Not Significant, Numbers in Parentheses Indicates Percentage

Chi Square results given in the Table 1 reveal that (χ^2=315.289; P<.000) there is a significant difference among MRECL users in the adequacy of 'Report'. It is observed that many respondents scoring 304(40.0%) say 'adequately', 233(30.7%) of them say 'somewhat inadequate', only 65(8.6%) of them state 'very inadequate' with a mean value of 3.31 and SD being 1.07. There is a significant difference (χ^2=120.895; P<.000) among the respondents with regard to the adequacy of 'Patent/Standards'. Many respondents scoring 236(31.1%) say

'adequately', 198(26.1%) respondents say 'somewhat inadequate'; only 64(8.4%) of them state 'very adequately' with a mean value of 2.98 and SD being 1.20. Similarly, the parameter of 'Theses / Chi Square results given in the Table 1 reveal that (χ^2=148.382; P<.000) there is a significant difference among MRECL users in the adequacy of 'Theses / Dissertation'. It is observed that many respondents scoring 259(34.1%) say 'adequately', 188(24.7%) of them say 'somewhat inadequate' and only 68(8.9%) of them state 'very adequately' with a mean

value of 3.06 and SD being 1.18. There is a significant difference (χ^2=193.737; P<.000) in case of adequacy of 'Seminar/Conference Paper', among the users. Many respondents scoring, 270(35.5%) say 'adequately', nearly 210(27.6%) of them say 'somewhat inadequate' and only 72 (9.25%) of them state 'very adequately' with a mean value of 3.16 and SD being 1.13.

There is a significant difference (χ^2=179.382; P<.000) among the respondents with regard to the adequacy of 'Maps/Diagrams/Charts, etc. Many respondents scoring 266(35.0%) say 'adequately' 206(227.1%) of them say 'somewhat inadequate' and nearly 67(8.8%) of them state 'very adequately' with a mean value of 3.11 and SD being 1.15. There is a significant difference (χ^2=186.395; P<.000) among the respondents with regard to the adequacy of 'Non-Book Materials' many respondents scoring 273(35.9%) say 'adequately' nearly 200(26.3%) of them say 'somewhat inadequate', and only 69(9.1%) of them state 'very adequately' with a mean value of 3.13 and SD being 1.15.

SUMMARY
The adequacy of library collection in MRECL, the adequacy of 'Text Books' there is significant differences (χ^2=593.645; P<.000) more number scoring 389(51.2%) of MRECL users say 'Adequately' with highest mean value of 3.93 SD being .90. The second ranking 'Reference Books' having mean value 3.78 SD being .97. The least ranking were 'Browsing Bookshops', there is significant differences (χ^2=120.895; P<.000) with a mean value 2.98 and SD being 1.20 (Table 1).

User Satisfaction about Library Collection
Satisfying user needs in the academic libraries has been the primary objective of libraries and librarians. Every year, new students, research scholar and faculties come to the engineering colleges with different needs and expectations. Furthermore, new technologies, databases, and more innovative systems for accessing information, have made the library more complicated and challenging for librarians and users alike. The abundance of resources available and the difficulty in being able to evaluate these resources also create problems for users. The inability to easily identify the specific use of a library's services because of the new technologies, and the difficulty to access information sources can contribute to user dissatisfaction among academic library users. User satisfaction about library collection such as: Text books, Reference books, General books, Question bank, Periodicals, Report, Theses/Dissertation, Back volumes, Newspapers, Seminar/Conference paper, Patent/Standards, Non book materials.

The analysis of satisfaction of library collection used by the respondents is presented in Table 2. There is a significant difference (χ^2=619.724; P<.000) among the respondents with regard to the satisfaction of 'Text Books'. Many respondents scoring 403(53.0%) say 'satisfied', 194(25.5%) of them say 'very satisfied', and only few accounting 31(4.1%) of them state 'not at all satisfied' with a mean value of 3.87 and SD being 1.02. There is a significant difference (χ^2=632.895; P<.000) in case of satisfaction of 'Reference Book' many respondents scoring 416(54.7%) say 'satisfied', 158(20.8%) of them say 'very satisfied' and only 24(3.2%) of them state 'not at all satisfied' with a mean value of 3.79 and SD being.99. There is a significant difference (χ^2=542.434; P<.000) among the respondents with regard to the satisfaction of 'General Books' many respondents scoring 398(52.4%) say 'satisfied'; 130(17.1%) of them say 'neutral', only few accounting27(3.6%) of them state 'not at all satisfied' with a mean value of 3.67 and SD being 0.98. Chi Square results given in the Table 2 reveal that (χ^2=548.263; P<.000) there is a significant difference among MRECL users in the satisfaction of 'Question Bank'. It is observed that many respondents scoring 399(52.5%) say 'satisfied'; nearly 139(18.3%) of them say 'very satisfied', and only 26(3.4%) of them state 'not at all satisfied' with a mean value of 3.71 and SD being .99. There is a significant difference (χ^2=349.632; P<.000 among the respondents with regard to the satisfaction of 'Periodicals'. Many respondents scoring 340(44.7%) say 'satisfied', nearly 182(23.9%) of them say 'neutral', only 56(7.4%) of them state 'not at all satisfied' with a mean value of 3.46 and SD being 1.08.

STM JOURNALS

Table 2: *User Satisfaction.*

S/N	Parameter	Responses in Percentage (N=760)					Mean	SD	χ^2	P Value
		1	2	3	4	5				
1	Text books	31 (4.1)	66 (8.7)	66 (8.7)	403 (53.0)	194 (25.5)	3.87	1.02	619.724	.000
2	Reference books	24 (3.2)	80 (10.5)	82 (10.8)	416 (54.7)	158 (20.8)	3.79	.99	632.895	.000
3	General books	27 (3.6)	81 (10.7)	130 (17.1)	398 (52.4)	124 (16.3)	3.67	.98	542.434	.000
4	Question bank	26 (3.4)	83 (10.9)	113 (14.9)	399 (52.5)	139 (18.3)	3.71	.99	548.263	.000
5	Periodicals	56 (7.4)	80 (10.5)	182 (23.9)	340 (44.7)	102 (13.4)	3.46	1.08	349.632	.000
6	Report	62 (8.2)	93 (12.2)	177 (23.3)	344 (45.3)	84 (11.1)	3.38	1.09	353.250	.000
7	Theses/Dissertations	93 (12.2)	109 (14.3)	201 (26.4)	282 (37.1)	75 (9.9)	3.18	1.16	201.053	.000
8	Back volumes	81 (10.7)	108 (14.2)	176 (23.2)	307 (40.4)	88 (11.6)	3.28	1.16	234.697	.000
9	News papers	37 (4.9)	59 (7.8)	72 (9.5)	341 (44.9)	251 (33.0)	3.93	1.08	485.500	.000
10	Seminar/Conference paper	81 (10.7)	99 (13.0)	160 (21.1)	323 (42.5)	97 (12.8)	3.33	1.17	264.342	.000
11	Patent/standards	128 (16.8)	100 (13.2)	191 (25.1)	262 (34.5)	79 (10.4)	3.08	1.24	146.250	.000
12	Non-book materials	109 (14.3)	115 (15.1)	179 (23.6)	275 (36.2)	82 (10.8)	3.13	1.22	157.737	.000

Key: 1 – Not at all satisfied 2 – Partially satisfied, 3 – Neutral, 4 – Satisfied, 5 – Very satisfied, SD = Standard deviation, N=Number of Respondents, χ^2 = Chi-Square, P = Probability, P≤.050 – Significant, P > .050 – Not Significant, Numbers in Parentheses Indicates Percentage

There is a significant difference (χ^2=353.250; P<.000) in case the satisfaction of 'Report' among the users. Many respondents scoring, 344(45.3%) say 'satisfied', 177(23.3%) them reply 'neutral', only 62(8.42) of them state 'not at all satisfied' with a mean value of 3.38 and SD being 1.09. Chi Square results given in the Table 2 reveal that (χ^2=201.053; P<.000) there is a significant difference among MRECL users in the satisfaction of 'Theses/Dissertation'. It is observed that many respondents scoring 282(37.1%) say 'satisfied', 201(26.4%) respondents say 'neutral', only 75(9.9%) of them state 'very satisfied' with a mean value of 3.18 and SD being 1.16. There is a significant difference (χ^2=234.697; P<.000) among the respondents with regard to the satisfaction of 'Back Volumes'. Many respondents scoring 307(40.4%) say 'satisfied', nearly 176(23.2%) of them replay 'neutral' and only 81(10.7%) of them state 'not at all satisfied' with a mean value of 3.28 and SD being 1.16. There is a significant difference (χ^2=485.500; P<.000), in case the satisfaction of 'Newspaper'. Many respondents scoring, about 341(44.9%) say 'satisfied', 251(33.0%) of respondents say 'very satisfied', only 37(4.9%) of them state 'not at all satisfied' with a mean value of 3.93 and SD being 1.08.

Chi Square results given in the Table 2 reveal that, there is a significant difference (χ^2=264.342; P<.000) among MRECL users in the satisfaction of 'Seminar/Conference Paper'. It is observed that many respondents scoring 323(42.5%) say 'satisfied'; nearly 160(21.1%) of them say 'partially satisfied', and only 81(10.7%) of them state 'not at all satisfied' with a mean value of 3.33 and SD being 1.17. There is a significant difference (χ^2=146.250; P<.000) among the respondents with regard to the satisfaction of 'Patent/Standards'. Many respondents scoring 262(34.5%) say 'satisfied', nearly 191(25.1%) respondents say 'neutral' and only 79(10.4%) of them state 'very satisfied' with a mean value of 3.08 and SD being 1.24. There is a significant difference (χ^2=157.737; P<.000) in case the satisfaction of 'Non Book Materials among the respondents. Many respondents scoring, 275(36.2%) say 'satisfied', 179(23.6%) of them say 'neutral' only 82(110.8%) of them state 'very satisfied' with a mean value of 3.13 and SD being 1.22.

User Satisfaction About Journal Collections
User satisfaction about journals collection such as: There useful of library collection such as: National print journals, International print journals, E-journals and Back issues of print

journals. The analysis of satisfaction of library journals collection used by the respondents is presented in Table 3.

It may be seen from the Table that, there is a significant difference (χ^2=274.645; P<.000) in case the satisfaction of 'National Print Journals'. Many respondents scoring, 323(42.5%) says 'satisfied', 169(22.2%) of them replay 'neutral', only few accounting 78(10.3%) of them state 'not at all satisfied' with a mean value of 3.30 and SD being 1.15.

Chi Square results given in the Table 3 reveal that, there is a significant difference (χ^2=216.303; P<.000) among MRECL users in the satisfaction of 'International Print Journals' 285(37.5%). It is observed that many respondents scoring 285(37.5%) replay 'satisfied', 200(26.3%) of them replay 'neutral'', only 58(7.6%) of them state 'very satisfied' with a mean value of 3.11 and SD being 1.15.

Table 3: *User Satisfaction about Journals Collection.*

S/N	Journals Collection	Responses in Percentage (N=760)					Mean	SD	χ^2	P Value
		1	2	3	4	5				
1	National print journals	78 (10.3)	106 (13.9)	169 (22.2)	323 (42.5)	84 (11.1)	3.30	1.15	274.645	.000
2	International print journals	97 (12.8)	120 (15.8)	200 (26.3)	285 (37.5)	58 (7.6)	3.11	1.15	216.303	.000
3	E-journals	98 (12.9)	107 (14.1)	177 (23.3)	302 (39.7)	76 (10.0)	3.19	1.19	222.250	.000
4	Back issues of print journals	118 (15.5)	94 (12.4)	223 (29.3)	271 (35.7)	54 (7.1)	3.06	1.17	219.250	.000

Key: 1 – Not at all satisfied 2 – Partially satisfied, 3 – Neutral, 4 – Satisfied, 5 – Very satisfied, SD = Standard deviation, N=Number of Respondents, χ^2 = Chi-Square, P = Probability, P≤.050 – Significant, P > .050 – Not Significant, Numbers in Parentheses Indicates Percentage

There is a significant difference (χ^2=222.250; P<.000) among the respondents with regard to the satisfaction of 'E-journals'. Many respondents scoring 302(39.7%) say 'satisfied', nearly 177(23.3%) of respondents say 'neutral' and only 76(10.0%) of them state 'very satisfied' with a mean value of 3.19 and SD being 1.19. There is a significant difference (χ^2=219.250; P<.000) among the respondents in the satisfaction of 'Back Issues of Print Journals'. It is observed that many respondents scoring 271(35.7%) say 'satisfied', 223(29.3%) of them say 'neutral', only 54(7.1%) of them state 'very satisfied' with a mean value of 3.06 and SD being 1.17.

SUMMARY
The user satisfaction about library collection in MRECL, the satisfaction of 'Text Books' there is significant differences (χ^2=619.724; P<.000) more in number, scoring 403(53.0%) of MRECL users say 'sarisfied' with highest mean value of 3.87 SD being 1.02 and 'National print journals' there is significant differences (χ^2=274.645; P<.000) more number scoring 403(53.0%) of MRECL users say 'sarisfied' with highest mean value of 3.30 SD being 1.15.

CONCLUSION
Library collection it quantity, quality and currency are directly related to user satisfaction. To satisfy the users the library professional must involve faculty members and other users in the selection of books and other resources. The policy must be to get the best book for the right reader at the least cost. From the user point of view, there are numerous resources including the web, and the difficulty is how to evaluate these resources and select the appropriate one for teaching research and projects. The inability to easily identify the specific use of a library's services is because of the new technologies, and the difficulty to access information sources. This may lead to user dissatisfaction. Hence, achieving adequacy of library collection is always a ready challenge for the academic libraries.

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