

## TECHNICAL EDUCATION INSTITUTE LIBRARIES IN MAHARASHTRA STATE WITH SPECIAL REFERENCE TO BOOK COLLECTION: A SURVEY

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### ABSTRACT

*In the present study the researcher investigated the availability of books at the engineering college libraries in Maharashtra State. The paper highlighted the AICTE's norms for book collection at engineering college libraries, addition of books during last five years and per capita books availability in the surveyed engineering college libraries. Also efforts were made to know the book selection procedure in the surveyed libraries. Statistical tests like group statistics and independent sample test are used to analyze the collected data.*

**Keywords:** Technical education, Book Collection, AICTE , Maharashtra Engineering Colleges Libraries,

### 1. INTRODUCTION

The basic and prime goal of any academic library is to satisfy its users information needs. In order to achieve this goal , library collection plays an important role. Hence selection of library collection is a challenging job where librarian has to keep in mind its users information needs. Library Collection is a broad term and it includes books, journals , e-books , e-journals , databases , non book material etc. In the present study is limited only to the availability of library books and the researcher tried to find out the availability of books in the engineering college libraries in Maharashtra State.

Libraries are a vital component of technical education institutes. The libraries in these institutions are a distinct lot among special libraries as they serve the needs of the specialized users and their nature is also an indicator of an academic library as it supports and supplements academic programs. Hence, they come in the category of special academic libraries (Vasishta, Seema, 2007, p.95). Such kind of library is important resource of the academic community and helps its members for their self-development, fulfillment of curriculum requirements and for promotion of study and research. Library of technical education institution is the main channel of bringing information to cater information requirements of the users.

## 2. AICTE's GUIDELINES FOR LIBRARY COLLECTION

AICTE (2011) provided the norms for book titles & volumes required at the time of starting any new engineering institution. As per these guidelines, a library should consist of at least 100 book titles and 500 volumes per course. The yearly increment in library collection should be of at least 50 book titles & 250 volumes per course and that the library should have a subscription of, at least 6 National & 3 International journals (hard copy) - per course. In addition, the availability of some e-journals is also essential. While as per AICTE's (2012) revised policy on library collection in degree engineering institutions; subscription of hard copy international journals is desirable, however the subscription of specific e-journals is mandatory.

## 3. DISTRIBUTION OF COLLEGES BY MANAGEMENT AND RESPONSE RECEIVED

In Maharashtra state, up to 2006-07, there are only five (5) engineering colleges, run purely by the State Government, whereas one college is aided and four colleges are autonomous; but as they receive funds from the state Government, the researcher has included these 10 colleges in the Aided Category, whereas the engineering colleges / institutes which are self-financing, are considered under Unaided Category. The data regarding the responses received from the colleges by the management is shown in Table 1

**Table 1**  
**Distribution of Colleges by Management and Response Received**

Category	Total Colleges	Response Received	%to Total Colleges
<b>Aided</b>	10	07	70
<b>Unaided</b>	138	79	57.2
<b>Total</b>	148	86	58.1

## 4. AVAILABILITY OF LIBRARY COLLECTION :

The availability of books in the engineering college libraries is analyzed with following sub facets-

### 4.1 Quantum of books:

Attempts were made to find out the quantum of book titles and volumes across aided and colleges. Data regarding availability of book; titles and volumes is collected and presented in table 2 .

It is clear from the table 2 that in case of aided colleges 42.86% libraries were having more than 24001 book titles and majority of the libraries (95.94%) were having book volumes in the range of 20001 to 24000. On the other hand in case of unaided colleges 35.44% libraries were having book titles in the range of 4001 to 8000 and only 2.53% cent libraries were having book titles more than 24000 whereas 66.97% libraries were having book volumes in the range of 20001 to 24000.

**Table 2**  
**Quantum of Books**

Frequency of Collection of Book Volumes	Category of the college							
	Aided				Unaided			
	Titles	Titles	Volumes	Volumes	Titles	Titles	Volumes	Volumes
1-4,000	0%	0	0.00%	0	22.78%	18	0.00%	0
4001-8000	14.29%	1	0.00%	0	35.44%	27	0.97%	1
8001-12000	0.00%	0	0.00%	0	24.05%	20	8.72%	7
12001-16000	14.29%	1	14.29%	1	11.39%	9	11.48%	9
16001-20000	14.29%	1	0.00%	0	3.80%	3	11.48%	9
20001-24000	14.29%	1	85.71%	6	0.00%	0	66.97%	52
>24001	42.86%	3	0.00%	0	2.53%	2	0.97%	1

#### 4.2 Quantum of books: Group Statistics:

Efforts were made to study the group statistics regarding quantum of books. Table 3 contains the group statistics regarding quantum of books from the libraries of the surveyed engineering colleges.

**Table 3**  
**Group Statistics regarding quantum of books**

Library Collection	Category of the College	N	Mean	Std. Deviation	Std. Error Mean
Total number of titles	Aided	7	2.0587E4	8625.05982	3259.96619
	Unaided	79	8.1991E3	5132.10817	581.09682
Total number of volumes	Aided	7	5.7911E4	23544.40990	8898.95048
	Unaided	79	2.6959E4	12567.30205	1422.96675

Group statistics regarding quantum of books revealed that in case of aided colleges, the mean number of books titles was 20587 and mean number of book volumes was 57911, whereas in case of unaided colleges, the mean number of books titles was 8199 and mean number of book volumes was 26959.

### 4.3 Quantum of books: Independent Samples Test :

The researcher tried to know whether number of book titles and book volumes across aided and unaided colleges differed significantly in the libraries of the surveyed engineering colleges. Table 4 reveals the data regarding independent samples test for the book titles and book volumes.

**Table 4**  
**Independent Samples Test**

Variables		Levine's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Total number of titles	Equal variances assumed	5.465	.022 <sup>i</sup>	5.750	.000	12388.300 37	2154.3216 6
	Equal variances not assumed			3.741	.009	12388.300 37	3311.3521 5
Total number of volumes	Equal variances assumed	7.456	.008 <sup>ii</sup>	5.743	.000	30951.626 37	5389.6481 9
	Equal variances not assumed			3.434	.013	30951.626 37	9012.0005 6

i. Levene's Test for Equality of Variances is significant for Total number of titles indicating variances are not equal

ii. Levene's Test for Equality of Variances is significant for total number of volumes indicating variances are not equal

The independent-samples "t-test" tests the significance of the difference between two sample means. Before analyzing the data, the equality of the variances of the two groups is tested using the Levine statistic test.

In this table, the significance value of the statistic is 0.022 and 0.008 respectively for number of titles and volumes. Because this value is lesser than 0.05, it can be concluded that the variances among groups are different.

The 't' statistic with equal variances not assumed was used in the analysis. With t value (3.741) being significant (p-value=0.09) for the total number of titles across aided and unaided colleges, this can be concluded that the mean number of titles across aided and unaided colleges differ significantly.

In case of total number of volumes also, t statistic when equal variances not assumed was significant (p-value=0.013) indicating mean number of volumes across aided and unaided colleges differ significantly.

#### 4.4 Quantum of books: AICTE Norms :

The researcher attempted to know that how many colleges are following AICTE's norm regarding the library collection. The data collected on this aspect is presented in table 5.

**Table 5**  
**Quantum of books: AICTE norms**

Category of the College	Following AICTE norms library Collection		Following AICTE norms for yearly increment of books		Following AICTE norms for	
	Yes	No	Yes	No	Library Collection	Increment of books
<b>Aided</b>	7 (100)	0 (0)	3 (42.9)	4 (57.1)	7	3
<b>Unaided</b>	79 (100)	0 (0)	50 (63.3)	29 (36.7)	79	50
<b>Total</b>	86 (100)	0 (0)	53 (61.6)	33 (38.4)	86 (100)	53 (61.6)

Figures in the brackets indicate % to vertical and horizontal totals.

AICTE provided the norms for book titles and volumes required at the time of starting any new engineering institution. As per these guidelines, a library should consist of at least 100 book titles and 500 volumes per course. The yearly increment in library collection should be of at least 50 book titles and 250 volumes per course.

Figures in the table shows that 100 % aided and unaided colleges were following the AICTE norms for the number of courses offered and number of book titles and volumes required. Whereas 42.86% aided colleges and 63.29 unaided colleges were following the AICTE norm for annual increment of books per year.

#### 4.5 Addition of books:

The researcher attempted to find out the number of books added during last five years. Table 6 indicates the data collected on number of books added during last five years from the libraries of the surveyed colleges.

**Table 6**  
**Addition of books : Last Five Years**

Year	Category of the college									
	Aided					Unaided				
	Purchased		Gifts		Total	Purchased		Gifts		Total
	Number	Avg.	Number	Av		Number	Av.	Number	Av.	
2006-07	26309	3758 (42)	51	7 (28,0)	26360	95103	1204 (17)	291	4 (12)	95394
2007-08	13509	1930 (21)	30	4 (17)	13539	91887	1163 (17)	389	5 (16)	92476
2008-09	10459	1494 (17)	22	3 (12)	10481	111643	1413 (20)	347	4 (14)	1417
2009-10	7039	1006 (11)	35	5 (19)	7074	115534	1462 (21)	533	7 (22)	1469
2010-11	5596	799 (9,0)	43	6 (24)	5639	137651	1742 (25)	844	11 (35)	1753
Total	62912	8987 (100)	181	26 (100)		551818	6985 (100)	2404	30 (100)	

Figures in the table display that in case of the libraries in the aided colleges, 42 % of the purchased books were added in the year 2006-07, whereas in case of unaided colleges, 25 % of the purchased books were added in the year 2010-11. On the other hand in case of libraries in the aided colleges, 28 % of the books were gifted in the year 2006-07 and in case of unaided colleges, 35% of the books were gifted in the year 2010-11.

#### 4.6 Per capita books availability:

Attempts were made to find out the per capita books availability across the aided and unaided colleges. Table 7 reveals the data regarding per capita books availability in the libraries of the surveyed colleges.

**Table 7**  
**Per capita books availability**

	Status	N	Mean	Std. Deviation	Std. Error Mean
Titles per student	Aided	7	14	6.52	2.46
	Unaided	79	5	2.77	0.31
Volumes per student	Aided	7	39	16.62	6.28
	Unaided	79	17	7.65	0.86

It is clear from the table that in aided colleges, average titles per student was 14 and volumes per student was 39 and in case of unaided colleges, average titles per student was 5 and volumes per student was 17. This showed that average per capita books availability was lesser in case of unaided colleges when compared to aided colleges.

#### 4.7 Per capita books availability: Independent samples test:

The researcher tried to know whether average per capita books availability across aided and unaided colleges differed significantly in the libraries of the surveyed engineering colleges. Table 8 contains the data regarding independent samples test for the per capita books availability.

Availability of books per capita across aided and unaided colleges were tested by using the independent samples t test for equality of means.

Levene's test for equality of variances is significant for all the test variables (p-values <0.05 in all the cases). So by using the equal variances not assumed, the t statistic calculated was interpreted for these variables. T statistic indicates that there was significant difference across aided and unaided colleges in titles per student, volumes per student So this can be concluded that the library collection across aided and unaided colleges differed statistically.

**Table 8**  
**Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	Sig. (2-tailed)	Mean Difference	Std. Error Difference
<b>Titles per UG</b>	<b>Equal variances assumed</b>	21.679	.000	7.043	.000	8.84448	1.25582
	<b>Equal variances not assumed</b>			3.562	.011	8.84448	2.48292
<b>Volumes per UG</b>	<b>Equal variances assumed</b>	18.739	.000	6.625	.000	22.48825	3.39460
	<b>Equal variances not assumed</b>			3.547	.011	22.48825	6.34064

#### 4.8 Book selection procedure in the library:

The researcher tried to know the book selection procedure from the libraries of the surveyed colleges. Data collected on this aspect are presented in table 9.

Figures in the table reflect that in case of aided colleges, recommendation of users and recommendation by committee were the major groups (28.6 % each) in the book selection process, whereas in case of unaided colleges, recommendation of users (29.%) and recommendation of committee (20.3%) respectively were the major methods used in the book selection process.

**Table 9**  
**Book selection procedure in library**

Book selection procedure	Category of the College		
	Aided	Unaided	Total
By recommendation of users	2 (28.6)	23 (29.1)	25
By recommendation of committee	2 (28.6)	7 (8.9)	9
By recommendations of librarian	0 (0)	2 (2.5)	2
Books on Approval	0 (0)	3 (3.8)	3
By recommendation of users and of committee	1 (14.3)	16 (20.3)	17
By recommendation of users , and of librarian	1 (14.3)	6 (7.6)	7
By recommendation of users, committee, librarian and Books on Approval	1 (14.3)	9 (11.4)	10
By recommendation of users and of librarian	0 (0)	5 (6.3)	5
By recommendation of users, librarian and Books on Approval	0 (0)	5 (6.3)	5
By recommendation of committee and Books on Approval	0 (0)	3 (3.8)	3
Total	7 (8.1)	79 (91.9)	86 (100)

### CONCLUSION:

Results shows that hundred per cent aided and unaided colleges were following the AICTE norms for the number of courses offered and number of book titles and volumes required. Whereas 42.86% aided colleges and 63.29% unaided colleges were following the AICTE norm for annual increment of books per year. Results of the 't' statistic indicated that there was significant difference across aided and unaided colleges in titles per student, volumes per student. So this can be concluded that the library collection across aided and unaided colleges differed statistically.

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