
Engineering College Libraries in Maharashtra State with Special Reference to Human Resources

Santosh Dnyanobarao Kadam

Librarian,
Degloor College,
Degloor, Dist-Nanded (M.S.)
Email: ksantosh016@gmail.com

Abstract

The present study focused on the human resources available at the degree engineering college libraries in Maharashtra State. The researcher classified the librarians according to age, education, professional experience and gender. The paper also highlighted on the Human Resource Development activities carried out for the library staff by these engineering colleges. The results of the study recommended the strict implementation of AICTE's norms for the staffing pattern at the engineering college libraries in Maharashtra State

Keywords

Engineering College Library, Human Resources, Human Resource Development, Staffing Pattern, AICTE.

Electronic access

The journal is available at www.jalis.in



Journal of Advances in Library and Information Science
ISSN: 2277-2219 Vol. 2. No.4. 2013. pp.183-191

INTRODUCTION

Human Resources are more valuable than any other resources in the organization because any organization can fulfill its objective or implement its policy only with the help of its human resources. Even in this age of technology human resources is the prime need to operate or implement all kinds of new technology hence competent and professional staff is the prime need of any organization. Library as a service organization needs competent staff to achieve its desired goals and objectives. The increasing impact of Information Technology replaces the structure of old library system hence professional and technically sound staff is the prime need of any academic library.

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). Considering the importance of libraries in the technical education the researcher tried to know the availability of human resources in the engineering college libraries of Maharashtra state with special reference to their educational qualification, professional experience, age group and gender classification etc. Also the researcher tried to find out the Human Resource Development activities conducted by these engineering colleges.

REVIEW OF LITERATURE

The relevant and selected literature published on the human resources in libraries and human resource development is scanned as under-

AICTE (2008) provided the norms for library staffing pattern in Engineering & Technology institutions. According to these norms, in order to serve the students and the faculty of the college, for at least 12 hours in a day, the library should have, at least one Librarian, one Assistant librarian and four library assistants. The Directorate of Technical Education, Government of Rajasthan (1991) suggested the staffing pattern for engineering college libraries. According to these guidelines, there should be one Librarian/ Sr. Librarian for the strength of around 350 students; one assistant librarian for the strength above 350 students; library clerk/ typist for the strength of

about 350 students; one book lifter cum binder for the strength of below 350 or two book lifters -cum-binders, when the strength of the students is above 350 and one fresher for the strength of about 350 students. Kannappanvar & Manjunatha (2011) conducted a survey of 45 engineering college libraries of the Karnataka state. The results of the study shows that the majority of the engineering colleges (71.11%) were having librarians with post graduate degree in library and information science. 28 (62.22%) engineering college libraries were having 1 or 2 professional staff & majority of the colleges 35(77.78%) were having 1 to 3 semi-professionals, whereas 1 to 5 non professional were working in 15(33.33%) colleges.

Human Resource Development is the integrated use of training, organization and the career development efforts to improve the individual, group and organizational effectiveness. The literature on the human resource development in college libraries is briefly discussed as under.

Garg, Sharma & Pandey (2010) explained the term "Human Resources," as the individuals which comprise the workforce of an organization. According to Peter Drucker (2006) the most valuable asset of a 21st century institution will be its knowledge workers & their productivity. Dabas & Gill (2000) discussed the concept of human resource development in the context of library personnel. The author recommended that the HRD mechanism of continuing education, training in IT and the Management skills developed through the seminars, the workshops and the short term courses enhance the professional & personal competence and the capability of the library/information staff. Prakasan, Kumar (2004) elaborated the conceptual need and the objectives of the in-service education (&) and the training program. The author also discussed the development of the course framework, training material and methodology, identification of the resource persons & the limitation of the program. Raj Rani (2004) emphasized that in order to meet the challenges of information explosion and the communication technology, the library staff should be trained to get themselves abreast with the latest information in the profession. Sharma & Singh (2003) revealed that mere education in library & information science is not adequate to cater to the needs of modern libraries in this sector. He concluded that a proper training was required to handle the task of an information specialist in the power sector. Kacherki & Koiznu (2010) conducted a study on the

motivational factors for increasing the work efficiency among the engineering college librarians of Maharashtra & Karnataka state. The authors concluded that in order to make employees satisfied and committed to their jobs in the academic libraries, there is a need for the strong & effective motivation at various levels.

SCOPE AND LIMITATIONS OF THE STUDY

The present study is limited to 86 Degree engineering colleges in the State of Maharashtra, which have responded to the questionnaire sent. The study is also limited for the period 2006-07 to 2010-11.

DISTRIBUTION OF COLLEGES BY MANAGEMENT:

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

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

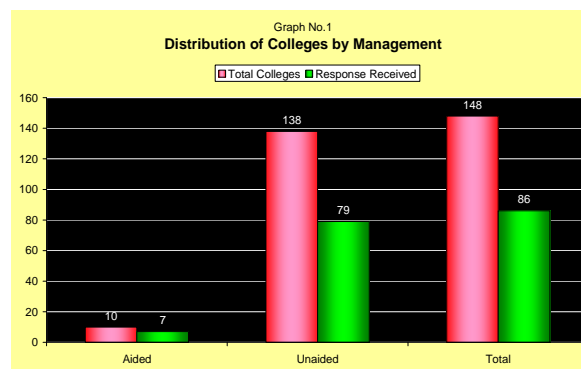


Figure 1 Distribution of Colleges by Management

It is clear from the table 1 & figure 1 that the response received from unaided colleges is very low. Most of the unaided colleges did not respond to the questionnaire delivered by the researcher. In spite of the researcher's attempt to collect the data with a letter from the Directorate of Technical Education of Maharashtra State, the response from the engineering colleges has been as poor as 70 % from aided colleges and just 57.2 % from unaided colleges. Aggregate response from the population of Libraries had been just over 58% . .

Gender wise Classification of the Librarians:

The researcher has attempted the gender wise classification of the librarians from the libraries of the surveyed engineering colleges. Table 2 displays the data on gender of the librarian. Figures in Table 2 display that male librarians were higher in both aided and unaided colleges compared to female librarians. In unaided colleges, percentage of female librarians was comparatively higher when compared with that of aided colleges

Proportion of males among Librarians is 66 % and of females, 34 % in aggregate. However, this proportion is far more than aggregate in case of males in Aided colleges at around 86 % as against just 14 % females.

However, this ratio of males to females is of lesser difference between males and females at 65:35 in unaided colleges. A clear-cut distribution of Librarians by sex shows that male Librarians dominate by size in both, the aided and the unaided colleges.

Table 2: Gender wise Classification of the Librarians

Gender of the librarians	Category of the college		
	Aided	Unaided	Total
Male	6(85.7)	51(64.6)	57(66)
Female	1(14.3)	28(35.4)	29(34)
Total	7(100)	79(100)	86(100)

(Figures in the brackets indicate % to total)

Distribution of the Librarians by Age Groups:

Attempts were made to classify the librarians by the age group , working in the surveyed engineering colleges. Table 3 classifies the data regarding the distribution of the librarians by age group. Sample librarians were distributed in seven age groups as shown in the table below.

Table 3: Age Group Distribution of the Librarians

Category of the college	Age group distribution of the Librarians							Total
	23-25	26-28	29-31	32-34	35-37	38-40	above 40	
Aided	0(0)	0(0)	0(0)	1(14.3)	0(0)	2(28.6)	4(57.1)	7(8.1)
Unaided	0(0)	3(3.8)	14(17.7)	9(11.4)	10(12.7)	6(7.6)	37(46.8)	79(91.9)
Total	0(0)	3(3.5)	14(16.3)	10(11.6)	10(11.6)	8(9.3)	41(47.7)	86(100)

(Figures in the brackets indicate % to total.)

Total number of sample librarians is 86, of which only 7 (8.1 %) were working in aided colleges, whereas the majority of 79 (91.9 %) were working in unaided colleges. Mean age in case of aided colleges was 44 years and 41.36 years in case of unaided colleges. Figures in the table shows that the majority of 57.1 % of the librarians in case of aided colleges and 46.8 % of them in the non-aided Colleges were in the age group of 40 + years. When compared to the aided colleges, relatively the larger proportion of younger library professionals was working in unaided colleges.

Independent sample ‘t’ test for the age of the librarian :

The researcher has also attempted to test the difference between the aided and unaided colleges in terms of the age of the librarian. Table 4 presents the results of independent sample ‘t’ test for age of the librarian.

The independent ‘t’ test is used to test the difference between the two independent groups on the means of a continuous variable. Here the ‘t-test’ was used to find out whether there was any difference among the mean age of the librarians across aided and unaided colleges. Mean age in case of aided colleges was 44 years and 41.36 years in case of unaided colleges.

Table 4: Independent Sample t Test for the Age of the Librarian

	Aided College	Unaided Colleges
Mean	44	41.36
Variance	81.5	66.74
Range	32 to 53	26 to 60
Median	42	41
Pooled Variance	67.57	
t Stat	0.69	

The independent-sample 't-test' tests the significance of the difference between two sample means. Independent's 't' test revealed that as the 't' statistics is 0.69 and its p-value is greater than 0.05, there was no significant difference among the means of age of

librarians across aided and unaided colleges was found.

Educational qualifications of the librarians:

The researcher has investigated into the educational qualifications of the librarians working in the libraries of the sample engineering colleges. Table 5 reveals the data about the educational qualification of the librarians.

The Figures in table 4.9 show that most of the librarians in the aided colleges were having M. Lib or other PG with M. Lib (42.9 % each), while on the other hand, in case of unaided colleges, most of the librarians were having M. Lib (34.18%), followed by M. Phil (29.11%) etc. It is observed from the collected data, that none of the librarians across the aided and unaided colleges were having Ph. D degree in Library and Information Science.

Table 5: Educational Qualification of the Librarians

Category of the College	Educational qualification of the librarians							Total
	B. Lib	M. Lib	Other PG with M. Lib	SET	NET	M. Phil	M. Phil with SET/NET	
Aided	0(0)	3(42.9)	3(42.9)	1(14.2)	0(0)	0(0)	0(0)	7(8.1)
Unaided	2(2.5)	27(34.2)	20(25.3)	2(2.5)	4(5.1)	23(29.1)	1(1.3)	79(91.9)
Total	2(2.3)	30(34.9)	23(26.7)	3(3.5)	4(4.7)	23(26.7)	1(1.2)	86(100)

(Figures in the brackets indicate % to total.)

Classification of the librarians by Professional experience:

The researcher tried to find out the professional experience of the librarians from the libraries of the surveyed engineering colleges. Accordingly, Table 6 indicates the data on the professional experience of the librarians. Figures in the table display the professional experience of the librarians across aided and unaided colleges. In both the aided and unaided college, professional experience of the librarians was higher. In case of aided colleges 11 to 15 years and above 15 years was the major group (42.9 % each) whereas, in case of the unaided colleges, above 15 years of professional experience in the library profession (39.3 %) was the major group. Fresh recruits usually get easy entry into the unaided colleges and hence, there is a dominance of less experienced persons in unaided colleges.

Table 6: Classification of the librarians by Professional experience (In years)

Category of the College	Professional experience of the librarians (In years)				Total
	0-5	6-10	11-15	Above 15	
Aided	0(0)	1(14.2)	3(42.9)	3(42.9)	7(8.1)
Unaided	5(6.3)	17(21.5)	26(32.9)	31(39.2)	79(91.9)
Total	5(4.3)	18(15.5)	29(24.9)	34(29.3)	86(100)

(Figures in the brackets indicate % to total.)

Supporting library staff:

The supporting library staff is the essential and the important ingredient in all kinds of institutions. AICTE (2008) provided the norms for the library staffing pattern in Engineering and Technology institutions. According to these norms, in order to

serve the students and the faculty of the college for at Librarian, one Assistant librarian and four library assistants. The data regarding this aspect is presented in Table 7. Figures in the table show that only 14.29 % aided colleges and 8.86 % unaided colleges were following the staffing pattern laid down by AICTE for the supporting staff in engineering college libraries.

Table 7: Supporting Library Staff

Category of the College	AICTE norms for supporting library staff		
	Following	Not Following	Total
Aided	1(14.3)	6(85.7)	07
Unaided	7(8.9)	72(91.1)	79
Total	8	78	86

(Figures in the brackets indicate % to total.)

Table 8: Professional/Semiprofessional/ Nonprofessional supporting library staff

Number of staff	Professional staff in Libraries		Non -professional staff in Libraries		Total College Libraries		
	Aided	Unaided	Aided	Unaided	Aided	Un-Aided	Total
1-2	2(2.3)	5(5.8)	1(1.2)	8(6.9)	3(3.4)	13(15.1)	16(18.6)
3-4	0(0)	7(8.1)	0(0)	7(8.1)	0(0)	14(16.3)	14(16.3)
More than 4	3(3.4)	26(30.2)	1(1.2)	26(30.2)	4(4.7)	52(60.5)	56(65.1)
Total	5(5.8)	38(44.1)	2(2.3)	41(47.7)	7(8.1)	79(91.9)	86(100)

Figures in the brackets indicate % to total)

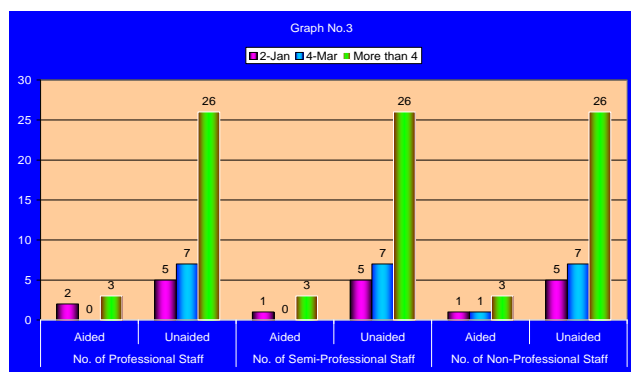


Figure 2. Professional/Semiprofessional/ Nonprofessional supporting library staff

Staff on Daily Wages in the libraries:

The researcher tied to know about whether there was daily wage staff working in the libraries of the surveyed engineering colleges. Table 9 reveals the

least 12 hours in a day , library should consist of one

Category of the supporting library staff:

Attempts were made to know as to how much of the professional, semi professional and non professional supporting library staff was working in the surveyed engineering college libraries. The data regarding this aspect is collected and presented in the table 8 and Figure 2. It is quite clear from Table 8 that more of Professional and Non-professional staff was appointed in unaided colleges on account of relatively large number of such colleges. Similarly, the relative share of the non-professional staff is more in relation to the professional staff as compared to the aided colleges.

data about daily wages staff working in the surveyed engineering colleges.

Figures in the table shows that the daily wages staff was working in 42.9% aided colleges and in 17.7 % unaided colleges. The tendency of employing more staff on daily wages is quite significant among the aided colleges because the procedure of filling in regular posts is quite complex. The process of obtaining approval for filling in the vacancies, appointment of the selection committee, rigidity of the qualifications prescribed, scarcity of the well qualified candidates and finally getting the approval of the University to regular appointments after the selection are the hurdles in filling up the granted posts. These hurdles compel the granted colleges to fill in the vacant posts by employing the personnel on daily wages.

Table 9: Daily Wages Staff in the library

Daily Wages Staff	Category of the College
-------------------	-------------------------

working in the library	Aided	Unaided	Total
Yes	3(42.9)	14(17.7)	17(19.8)
No	4(57.1)	65(82.3)	69(80.2)
Total	7(100)	79(100,0)	86(100)
Yates' chi-square	1.222		
Yates' p-value	0.269		

Yates' chi-square was calculated here as at least 20 % of the expected frequencies are less than 5. Yates' chi-square value was 1.222 with p-value greater than 0.05 indicating that the relationship between the daily wages staff and the status of the colleges was not statistically significant.

Quantum of Daily Wages staff in the library:

The researcher attempted to know the number of daily wages staff in the surveyed engineering colleges. Table 10 contains the data regarding the number of daily wages staff in the library. Figures in the table displays that the mean was around 2 daily wages staff in both the aided and unaided colleges. However, in case of aided colleges the share of daily wages staff is higher compared to the unaided colleges although it was statistically insignificant.

Table 10: Number of daily wages staff

Category of the College	Number of daily wages staff
	Mean
Aided	2.33

Unaided	2.28
Average Mean	2.30

14. Knowledge of IT to supporting staff:

An enquiry was also made to know the level of IT knowledge to the library supporting staff .Table 11 contains the data regarding the level of IT knowledge of the library supporting staff working in the surveyed engineering colleges.

It is clear from the Table 11 that 42.8 %library supporting staff across the aided colleges possesses satisfactory knowledge of IT, whereas only 29.1 %library supporting staff in unaided colleges possessed satisfactory knowledge of IT. In case of formal computer literacy skills, over 68 %of supporting staff in unaided colleges possesses the knowledge. Relative share of Library personnel with lack of proper IT knowledge is more among library personnel of the aided colleges is 28.6 %as against just 2.5 % in unaided colleges. Aided colleges lag far behind.

Further, chi-square test was used to test the association between knowledge of IT to the supporting staff and status of the colleges. As the chi-square value (11.34) was higher and its p-value (0.0034) was lesser than 0.01, this can be interpreted as the knowledge of IT to the supporting staff is independent of the status of the colleges. So, it can be concluded that there is significant relationship between these two variables which is confirmed by the chi-squared test at 1%level of significance

Table 11: Knowledge of IT to the Library Supporting Staff

Category of the College	Level of IT Knowledge to the library supporting staff			Total
	Formal Computer Literacy only	Satisfactory Knowledge of IT	Lack of proper I.T Knowledge	
Aided	2(28.6)	3(42.8)	2(28.6)	7(100)
Unaided	54(68.4)	23(29.1)	2(2.5)	79(100)
Total	56(65.1)	26(30.2)	4(4.7)	86(100)
Chi-square	11.34			
p-value	0.0034			

(Figures in the brackets indicate % to total.)

Human Resource Development: Improvement in Professional Competencies:

Attempts were made to know, as to whether the library staff tries to improve their professional competencies in the surveyed engineering colleges.

The data regarding this aspect is collected and presented in the table 12.

Table 12: Professional Competencies

Category of the College	Improvement in the Professional Competencies		
	Yes	No	Total
Aided	6(85.7)	1(14.3)	7(100)
Unaided	70(88.6)	9(11.4)	79(100)
Total	76(88.4)	10(11.6)	86(100)
Pearson Chi-Square = .052			

(Figures in the brackets indicate % to total.)

Figures in the table indicate that most of the library staff across aided and unaided colleges was continuously trying to improve their knowledge and skills. The researcher also tried to test the relationship between status of colleges and staff trying to improve their knowledge and skills with the help of chi square test. The significance values of the chi square test, indicates a statistically non-significant relationship between the status of the college and the library staff trying to improve their knowledge and skills continuously.

Development of Professional Competencies:

Efforts were made to know the ways used by the library staff to improve their professional competencies. Table 13 contains the data regarding the programmes arranged by colleges and availed of by the library staff for improvement in their professional competencies.

Figures in the table indicate that attending the Conferences / Seminars / Workshop and the short – term training programs, in case of unaided colleges, was the major way used to improve professional competencies, whereas in case of aided colleges, attending conferences / seminars / workshops and short – term training program and the distance education courses were the major ways to improve the professional competencies.

Table 13: Development in Professional Competencies

Category of the College	Ways used to Improve the Professional Competencies								Total
	Attending Conferences / Seminars/ Workshops	Short – Term Training Program	Distance Education courses	Visit to Other Libraries	Attending Conferences / Seminars/ Workshops and Short – Term Training Programme	Conf / Semi/ Works and Short Term The Program and Distance Education courses	Attending Conferences / Seminars/ Workshops and Distance Education courses	Short – Term Training Program and Distance Education courses	
Aided	0(0)	2(28.6)	0(0)	0(0)	2(28.6)	1(14.2)	2(28.6)	0(0)	7(100)
Unaided	18(22.8)	9 (11.4)	11 (13.9)	2(2.5)	15(19)	9(11.4)	12(15.2)	3(3.8)	79(100)
Total	18(20.9)	11(12.8)	11(12.8)	2(2.3)	17(19.8)	10(11.6)	14(16.3)	3(3.5)	86(100)

(Figures in the brackets indicate % to total.)

Conferences/ seminars attended by the librarians:

The researcher attempted to know about the Conferences/seminars attended by the librarians of the surveyed engineering colleges.

Table Data collected on this aspect is presented in table 14.

International Conferences, Seminars and workshops, whereas nearly 5 % of the unaided colleges deputed their librarians for these programs. Participation of librarians in the University and regional level conferences is more or less in similar proportions in the Aided and non-aided Colleges at 16.5% and 16.3 % respectively.

It is clear from the table 14 that participation of Librarians in National level conferences / seminars was the major group in case of aided colleges (57.1%) whereas state level conferences / seminars were the major group (46.5%) for the unaided colleges. It is however, surprising to note that the Aided College Librarians didn't participate in the

Chi-square test was used to test the association between conferences / seminars attended by the

librarian and status of the colleges. As the chi-square (23.19) is higher and its p-value (0.0004) is lesser than 0.01, this can be interpreted that there is the statistical evidence that the conferences / seminars attended by the librarians is dependent on status of

the colleges. So it can be concluded that the relationship between conference / seminars attended by the librarians and status of colleges were statistically significant as chi-square value is significant at 1% level of significance.

Table 14: Levels of Conferences/ Seminars Attended by the Librarians

Category of the College	Type of conferences/seminars attended by the librarians				
	State Level	National Level	International Level	University and Regional Level	Total
Aided	2(28.6)	4(57.1)	0(0)	1(14.3)	7(100)
Unaided	38(48.1)	24(30.3)	4(5.1)	13(16.5)	79(100)
Total	40(46.5)	28(32.6)	4(4.7)	14(16.3)	86(100)
Chi-square	23.19				
p-value	0.00004				

(Figures in the brackets indicate % to total.)

Organization of Training Programmes for the Supporting Staff:

The researcher tried to know about the organization of training programmes for the library supporting staff. Table 15 contains data regarding organization of training programmes for the supporting staff. It is clear from the table that in both aided and unaided colleges, there was organization of training programmes for the library supporting staff in 46 colleges (53.5 %) of the colleges.

The researcher tried to test the relationship between status of college and the organization of training programmes for the library supporting staff by employing chi square test. As the chi-square statistic is greater than 0.05, the significance values indicating a statistically non-significant relationship between status of college and the organization of training programmes for the supporting staff.

Table 15: Organization of Training Programmes for the Supporting Staff

Category of the College	Organization of training programmes for the supporting staff		
	Yes	No	Total
Aided	4 (57.1)	3 (42.9)	7 (100)
Unaided	42 (53.2)	37 (46.8)	79 (100)
Total	46 (53.5)	40 (46.5)	86 (100)
Pearson Chi Square :			

0.41
P Value : 0.679

Figures in the brackets indicate % to total.

15.5 Type of training programmes organized:

Attempts were made to know about the type of training programs organized for the library supporting staff. Table 16 contains data regarding type of training programs organized for supporting library staff.

Table 16:Kinds of Training Programmes Organized

Category of the College	Kinds of training programmes organized for the library supporting staff			
	Individual training by experts	In-house workshops	On the Job	Total
Aided	5(75.4)	0(0)	2(28.6)	7(100)
Unaided	44(55.8)	28(34.9)	7(9.3)	79(100)
Total	49(57)	28(32.6)	9(10.4)	86(100)

(Figures in the brackets indicate % to total.)

The figures in the table indicate that in both the aided and unaided colleges, individual training by experts for the library supporting staff was the major group. In aided colleges, individual training by experts for the supporting staff constituted about 75 % and in unaided Colleges, individual training by experts for the supporting staff constituted about 55.8 %. It is to be noted that no in - house training was provided for by any of the aided Colleges.

Conclusion:

From the above results it may be satisfactory noted that qualified librarians are available at engineering college libraries in Maharashtra State. But on the other hand it was found that there was no uniformity regarding staffing pattern in libraries. It is recommended that the staffing pattern should be made strictly as per norms laid down by AICTE. However at the time of recruitment of library supporting staff, management should give preference to the professional staff, as it was seen that more non-professional and semi-professional supporting staff was working in the library. As the advent of technology had its great impact on library operations & Services, librarians and supporting library staff should be motivated to attend workshop / conferences / seminars etc.

REFERENCES:

1. AICTE . (2008). Library Staff . In *AICTE Approval Process Handbook* . New Delhi : AICTE.
2. Arambam Hileima Devi & Ch Vikas Th Purnima Devi .(2006) . Human Resource Development For Digital Environment : A Case Study Of The Libraries Of Manipur. 4th Convention PLANNER . Mizoram.
3. Bavakutty , M . (1986) . College Library : How it Should be .Library Herald , Vol.23(3 & 4). 219-226.
4. Dabas ,K.C. , Gill, N.S & Dabas, Sheela .(2000) Perspective Of Human Resource Development : An Agenda for Library and Information Staff. In (S D Vyas , . Ed.) Readings in Library and Information Science: Dr S P Sood festschrift. 99-104.
5. Directorate of Technical Education , Govt. of Rajasthan . (2004) . Manual of Norms and Duties For Directorate Of Technical Education (Education Wing) , Polytechnic & Board of Technical Education. Retrieved 12 January 2012 from <http://www.dte.rajasthan.gov.in/Manual-polytechnic.pdf> .
6. Garg , Amrit ., Sharma , Anishka. & Pandey , Manisha.(2010). Emerging trends of Human Resources Management (With special focus on Information Technology Industry) . Lachoo Management Journal , Vol.1(1). 88-98.
7. Kacherki , U . & Koniznu ,P.U. (2010) . Motivational factors for increasing work efficiency among engineering college librarians : A Comparative Study of Maharashtra & Karnataka States. SRELS Journal of Information Management , Vol.47.(6) , 681-88.
8. Kannappanavar, B. U., & Manjunatha, K. V. (2011). Library Resources and Services of Engineering Colleges in Karnataka. *Library Philosophy & Practice*, 200-218.
9. Kumar ,S. (2004). In-Service Education And Training (INSET) for Library Professionals : Issues and Strategies in Changing Environment. In Dr. PSG Kumar festschrift - Library and Information Profession in India : Reflections and Redemption , Vol.1. 285-292
10. Prakasan ,E, R., Swarna ,T., & Vijay, Kumar. (2001). Human Resource Development In Hybrid Libraries. In H.K. Kaul. & Chandra Harish. (Eds.), National Convention on Library and Information Networking (NACLIN). 292-299. New Delhi
11. Raj Rani.(2004). Human Resources Developments in Libraries In Changing Scenario. In Shokeen , Ashu & Others (Eds.), ILA Golden Jubilee conference on Knowledge Organization in Digital Environment in Libraries. 556-562 .Vadodara.
12. Ramesh , Babu. (1996). Manpower in College Libraries in Tamil Nadu & Kerla . In Ramesh Nair. (Ed.), College Library Development. (pp. 68-74). New Delhi: Ess Ess Publications.
13. Sharma ,Pushkar Lal .(2002). Need of Human Resource Development in Libraries. In Kaul , H.K. & Baby, M.B.(Eds.) , National convention on Library and Information Networking (NACLIN) . 268-275.Cochin .
14. Sharma ,S.K. and Singh , Shankar.(2003) . Need for a training policy for power sector librarians in India. 48th All India Library Conference on Electronic Information Environment and Library Services. 813-819 . Bangalore.
15. Vasishtha, Seema. (2007). Status of libraries in higher technical education institutions: with

special reference to deemed universities of North India. *Annals of Library & Information Studies*, 54(2), 5.