Chapter 8

SUMMARY OF FINDINGS AND CONCLUSION

8.1 Introduction

In this chapter the summary of major findings of the study followed by tenability of hypotheses, implications of the study, areas for further research and conclusion are presented.

8.2 Summary of major findings

The analytical study of the data collected has revealed a number of useful findings. These findings are significant indicators of the inadequate allocation and development of manpower resources, both in terms of quality and quantity. The major findings correlated to each objective are summed up here.

Objective 1

1. The general information regarding the college libraries reveals that Arts and Science College libraries constitute the major section of libraries than Professional Colleges. As far as grading system of college libraries are concerned, the present grading system is unscientific and the existing norms are outdated. Area wise distribution of colleges reveals that majority are distributed in the rural area and more are private colleges. There is no uniform pattern in the working hours of the library.

2. It is found from the study that nearly one fourth of libraries having a book collection below 5000 and 22.30 percent of libraries do not have any non-book materials (electronic information resources) such as Audio-cassettes, Video cassettes, Floppy disc, CD-ROM, etc.

3. Unaided Arts and Science Colleges in the urban area show high mean in book collection compared to Aided Professional Colleges in the rural area.
4. The present strength of the professional as well as supporting staff is totally inadequate to provide effective service. No standard staffing pattern is followed in any of the college libraries in Kerala.

5. Among the ten categories of services offered by the college libraries in Kerala only the basic services such as Circulation and Reference service are rendered by all college libraries. Other services commonly preferred by the librarian are Reprography, Newspaper clipping and CAS. Very few libraries offer SDI, Bibliography service and Documentation. Inter-library loan service is rare among college libraries in Kerala (9.67 percent).

6. The use of Information Technology in college libraries is severely limited. At present, only 40 percent of librarians are conversant with IT based services in college libraries. The study reveals that though computer facility is available in 66.17 percent of libraries, below 50 percent of the libraries are using their computer facility for various house-keeping operations and other information search facilities except cataloguing (56.51 percent). Also found that there is wide variation in the type of software used.

7. It is evident that the finance available to the college libraries in Kerala is far less than the standards recommended by the education commissions, experts and UGC. The available finance is totally inadequate for providing effective library service to the academic community. There is no separate allocation of funds for IT equipments and their maintenance in most of the libraries.

8. The study reveals that majority of the libraries suffer due to inadequate physical facilities.

9. Library Advisory Committee and Book Selection Committee are constituted in most of the college libraries. But, it is observed that the committees are not functioning properly.

10. As far as the organizational pattern in college libraries are concerned majority of the libraries adopted Central pattern. A centrally located central library is preferred by majority of the college librarians for their colleges.
Objective 2

11. It is found from the survey that 60.22 percent of professional librarians are males and the remaining 39.78 percent are female librarians.

12. Majority (63.57 percent) of librarians have qualification higher than B.L.I. Sc. and 39.78 percent librarians have taken Information Technology course at Certificate or Diploma level.

13. Survey reveals that majority of librarians under the survey (67.29 percent) have undergone continuing education programme such as refresher / orientation course / in-service training / workshop or informal course. Also found that 56.35 percent of librarians have attended two courses.

14. It is found from the analysis that only 38.67 percent of librarians have got the opportunity to participate in computer training.

15. The study that 63.20 percent of librarians have attended conferences / seminars where as only a meager group of librarians (13.75 percent) have presented papers in conference / seminars during their entire professional career. This proportion is lesser than that of those who had attended conferences / seminars.

16. The publication out put of librarians reveals that an overwhelming majority of librarians (83.27 percent) have not made any contribution in the field of Library and Information Science / Information Technology.

17. Membership in Professional Associations shows that majority (60.22 percent) of college librarians are members of one or more of the Professional Library Associations. But only nearly one fourth (24.16 percent) are effectively participating in the manpower development activities of the Associations.

18. It is found that nearly three fourth of librarians (73.98 percent) have no self-development programme. But at the same time 72.49 percent of librarians possess self-study behavior.
19. **Knowledge** - Analysis of the mean scores of the element of professional manpower, knowledge reveals that out of ten items in the scale selected, none of the times scored a level of 4 (Good) and above. The highest score obtained is 3.87 for the item Professional knowledge for effective library management. The item which shows lowest mean score is knowledge of information systems and network (3.02). The total mean score of all the items of knowledge is 3.29.

20. **Skill** - Analysis of the mean scores of the element skill shows that among the twelve items selected skills in effective communication (oral and written) got the highest mean score of 3.43. The items which show the lowest mean score are Skills in reprography and Skills in writing and publication (2.88 each). The total mean score of Skill is 3.16. It is below the level of Knowledge.

21. **Ability** - In the element Ability the item Ability in planning and organizing and controlling the activities shows the highest mean score of 3.67 and the item which shows the lowest mean score is ability to use IT for value addition process (3.10). The total mean score of Ability is 3.42.

22. **Talent** - Among the items in the measuring instrument, Talents in library and information science has obtained the highest mean score of 3.81. Talents in writing, publishing and presentation having the lowest score of 3.00. The total mean score of the three items of Talent is 3.36.

23. **Aptitude** - Out of the three items put in the scale Aptitude in use of IT services shows that highest score of 3.33. The lowest score level is to Aptitude in writing and publishing (3.01). The average Aptitude level is 3.14. The element which shows the lowest mean score is Aptitude.

24. **Value** - Three Values which are identified as relevant for library professionals are included in the scale. Social value - Likeness to users having the highest score of 3.87 and the lowest score level goes to Theoretical value - Interest in new developments (3.68). The mean score level of value is 3.57.
25. **Attitude** - In this element, Attitude towards Information Technology which has a score level of 3.82. The highest score goes to Attitude towards work (4.33). The item which shows lowest score is Professional attitude with consistent user needs (3.72). The total mean score of Attitude is 4.09 which is the highest among the scores of other manpower elements.

26. **Belief** - Among the six items of Belief included in the scale the first item Belief in work has got the highest score of 4.35. The item which shows the lowest score level is Belief in the ability of IT to solve problems (3.84). The total mean score is 4.08. It is just below the score level of Attitude.

27. **Involvement** - Out of the six items of Involvement in the scale, involvement in job shows the highest score of 4.26 followed by Involvement with users (4.18). The item in which librarians show lowest involvement is Involvement in Research activities (3.32). The total mean score of Involvement in 3.78.

28. **Interest** - Among the four important areas of Interest included in the scale, Interest in the use of IT shows the highest score of 4.06. Interest in writing and publishing shows the lowest level of 3.17. The total mean score of interest is 3.80.

29. A close examination it is found that out of the ten elements of manpower, Attitude has got the highest score level of 4.09 i.e. 'Good' level followed by Belief (4.08). The element which shows the lowest score level is Aptitude (3.14) i.e. just Average. Two important elements such as Knowledge and Skill have a score level of 3.29 and 3.16 respectively. Both are average level. The total mean score of all ten elements is estimated as 3.54. This is the average manpower score. Out of the 60 items in the scale of manpower the item which shows the highest score is Belief in work (4.35) followed by Attitude towards work (4.33). The items which show the lowest score are Skills in reprography and Skills in writing and publication (2.88). It is below Average level.

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30. Factors of Manpower Development - Among the ten items, Responsibility in job shows the highest score level of 4.29. The item which shows lowest score level is Difficulty / problems to perform their duties and offering IT services (2.90). It is found that a great majority of librarians are responsible in their job (score level 4.29). Librarians are getting a 'Good' (4 point level) recognition from the users (4.00). Motivation shows nearly Good level (3.98). 'Will' to carryout the services in the new media and means and Vision and orientation to the future is in an above Average level. But four important factors such as Encouragement from the authorities for professional growth (3.49), Environment to carry out work and provide IT services (3.33), Opportunity to update their knowledge and use their talents in work including IT services (3.37) and Facilities for developing individual competencies (3.22) are in a low score level i.e. these factors are only in an Average level.

31. Satisfaction - It is found that only four items (Status, Designation, Library environment and Working conditions) show above 3.5 score level i.e. above average satisfaction. The remaining six items except Criteria for promotion show 3.04 to 3.39 range level (Average level). Criteria for promotion has the lowest score level of 2.86. It is below average. None of the items shows Good (4) or Very Good (5) level of satisfaction. The college librarians as a whole have an average level of satisfaction. Mean satisfaction score is 3.40.

32. There is significant difference in the mean scores of the manpower elements Skills and Interest towards IT application between librarians working in Arts and Science and Professional colleges. The librarians working in professional colleges exhibit higher level of skill and Interest towards IT application.

33. Significant difference is found to exist in the elements of manpower - Skill, Ability, Aptitude and Value towards IT application between librarians working the colleges located in the Rural and Urban areas. Librarians working in the colleges located in the Urban area show higher level.
34. None of the elements in the scale shows significant difference at 0.05 level between librarians working in the Government and Private Colleges. There is no significant difference in the professional manpower level towards I T application between librarians of Government and Private Colleges.

35. In the case of the independent variable Financial nature also no significant difference (even at 0.05 level) is found to exist in the mean scores of any of the elements of manpower towards IT application between librarians of Aided and Unaided colleges. So, with respect to professional library manpower level towards IT application, Aided and Unaided college librarians show equal status.

36. It is found from the Z-test that out of the twelve items in the scale seven items show significant difference. Of that three (Skill, Ability and Aptitude) show high significant difference. Therefore, professional library manpower level towards IT application between librarians working in colleges as a Research Centre is in a higher level than in not a Research Centre.

37. It is found that professional manpower towards IT application is not very much affected by their gender. But, male librarians possess higher level of Aptitude, Value and Interest those female librarians. At the same time female librarians show slightly higher level of Knowledge.

38. The result reveals that in nine elements significant difference among different age groups are shown. Therefore, it is clear that the independent variable Age of librarians has a direct influence in the manpower level towards IT application. The age group 31-40 shows higher score level compared with other groups in ten items in the scale except Value and Satisfaction. In Value the age group below 30 and in Satisfaction the age group above 50 show higher score level.

39. All the items in the scale show significant difference in the mean scores based on the independent variable Professional qualification. It is evident from the analysis that professional qualification is an important
factor to determine the level of manpower of librarians. Those librarians having higher professional qualifications possess higher level of manpower towards IT application than those having B.L.I.Sc.

40. The test result reveals that the group of librarians who had attended IT course has shown higher manpower level towards IT application than those who had not attended the course. Therefore, taking IT course at any level (Certificate / Diploma) is needed to raise the manpower level towards IT application.

41. Manpower of librarians towards IT application is not very much affected by their length of service. (Professional experience). There is no significant difference in the elements Knowledge, Skill, Ability, Talent Involvement and in Job satisfaction among the five groups. The remaining six items (majority are psychological elements) show significant difference in the mean scores. Therefore, librarians with different length of service may be considered to be more or less similar in their level of manpower towards IT application.

42. In the independent variable Refresher course taken, out of twelve items in the scale five elements factors of manpower development and job satisfaction shows significant difference in the mean scores. Therefore attending refresher / orientation courses have much impact on the level of manpower towards IT application. But, there is no significant difference exist in the mean scores of Knowledge and Skill (significant level is close 0.05 level). This indicates that when organizing refresher courses care should be taken to ensure the development of knowledge especially practical knowledge and skills towards IT application of the participants.

43. As far as the independent variable Number of Refresher/orientation courses attended is concerned, out of the ten elements of manpower in the scale only Ability, Attitude and Belief show significant difference. This shows that the independent variable Number of refresher course taken has not much impact on the level of manpower towards IT application.
44. The result shows that in the case of the independent variable Computer training taken, out of the twelve items in the scale except the element Interest all other items show high significant difference between the mean scores of elements of manpower, factors of manpower development and job satisfaction of two groups of librarians. This clearly indicates that the independent variable Computer training taken has high influence on professional library manpower towards IT application.

45. It is evident from the analysis that the independent variable Participation in conferences/seminars has a direct influence in the level of professional manpower towards IT application because ten items in the scale show significant difference between the mean scores of the two groups of librarians based on the characteristic participation in conferences/seminars.

46. It is understood from the result that, out of the ten, eight elements of manpower show high significant level of difference in the mean scores of elements of manpower towards IT application of two groups of librarians categorized on the basis of the independent variable presentation of papers in conferences/seminars. The independent variable Presentation of papers has highly influenced the level of manpower.

47. It is clear from the test result that, those librarians have publications in their credit show higher level of Knowledge and Skill towards IT application. Therefore the independent variable Publications in credit have an impact on manpower development. But it is also found that no significant difference is found to exist in the element Attitude between the two groups.

48. In the case of the independent variable Computer experience, the result of the Scheffe test reveals that the mean scores of manpower of librarians who have no computer experience have significant difference with those groups of librarians having 3-4 and above years of experience. And also found that there is also significant difference between those having less than 4 years and more than 4 years of computer experience.
But in the case of Attitude, Belief, Interest and Satisfaction significant difference is found to exist only between those who have no computer experience and those have computer experience. Among those groups having computer experience no significant difference is found to exist. It is clear from the Scheffe result that the independent variable Computer experience has an important impact on the level of professional manpower towards IT application.

49. It is noticed from the analysis that significant difference is showing between the librarians who use the computer and librarians not using the computer. The manpower score level of librarians using the computer Daily is higher than those who use the computer Frequently and Never. This clearly indicates that daily use of computer is an important factor to develop the IT skills of librarians.

50. In the independent variable self - development, out of twelve items in the scale except Value, Involvement and satisfaction all other elements show significant difference in the mean scores. Of that seven items show high significant level. This shows that self-development has influenced the level of manpower. Therefore it is highly necessary to have Self-development programme among librarians in order to develop the level of manpower towards IT application for college libraries.

51. In the independent variable self-study behavior, significant difference is found to exist in the mean scores of eight out of twelve items in the scale, of that seven items show high significant level of difference. Therefore it is evident that the independent variable Self-study behavior has an impact on the level of professional library manpower towards IT application.

52. It is found from the analysis that there is no influence the independent variable Participation in conferences/seminars, Presentation of papers in conferences/seminars, Publications in credit on the manpower element Attitude which has obtained the highest score level of 4.09. But these
variables have very much influence on Knowledge and Skills of professionals.

53. It is found from the Multiple Regression Analysis that the independent variables, Age, Qualification, Computer experience, Computer training, Attended conferences/ seminars, Location, Professional experience shows impact on more manpower elements. Whereas, Sex, Papers presented in conferences/ seminars, Refresher course taken, Number of Refresher course attended, publications in credit, Status as Research Centre, Management Status, Frequency of use of computer, Self-development and Self-study behaviour show impact on less number of elements of manpower.

**Objective 3**

The third objective of the study is to propose a manpower development plan for developing the professional librarians to equip themselves in the present and future prospects of Information Technology.

The proposed plan is detailed in Appendix V.

**Objective 4**

The fourth objective of the study is to find out the areas where professional librarians need further training. After consolidating the data collected the investigator prepared the list of areas for further training are given below.

- Application software designing and maintenance
- Barcode Scanning
- Cataloguing
- CD-Rom search
- Classification
- Computer applications
- Computer programming
Data entry
Digital library making
Digitization of documents
DTP
Electronic information sources
E-Mail
E-Resources and Management
HTML
IT based services
Internet searching and retrieving
LAN environment
Library automation and networking
Library software application
Library software management
MARC Format
Networking
On-line access
On-line archive
Software development for library
Web design
Web based services

8.3 Tenability of Hypotheses

The study started with the formulation of five major hypotheses. Based on the major findings the tenability of these hypotheses was tested.
The first hypothesis states: "the present situation of most of the college libraries in Kerala is not satisfactory for providing IT oriented services to the users".

The analysis of the first questionnaire "Questionnaire for library" revealed that the present situation of college libraries is far from satisfactory with respect to its documentary resources especially electronic information resources (Non-book materials), Staff, Technical organization, Services available, Use of Information Technology, Finance, Physical facilities of the library, Library management and Pattern of organization.

It was observed that the use of Information Technology in college libraries is of varied in nature. Though computer is available in 66.17 percent of libraries, only 58.36 percent are using the computer. Among them below 50 percent of libraries are using their computer for various house keeping operations and other search facilities except cataloguing (56.51 percent). Also found that there is wide variation in the type of software used. There is no separate allocation of funds for IT equipments and its maintenance in most of the college libraries.

The present situation of college libraries in Kerala is found unsatisfactory for providing IT oriented services to users. Therefore, the first hypothesis is fully substantiated.

The second hypothesis states: "the present manpower investment in college libraries in Kerala is inadequate and is not based on any manpower survey to assess the actual requirements".

The professional manpower in college libraries in Kerala is inadequate as shown in the analysis of the data. The investment of manpower in each library reveals that it is neither based on the UGC staff pattern nor the staff pattern recommended by the Expert Committee on College Libraries in Kerala (Joy Committee, 1994). Most of the libraries are functioning with minimum professional staff. Few exceptions are also observed. Majority of the libraries require more professionally qualified
staff to meet the actual requirements in the IT environment. Hence, the second hypothesis is proved satisfactorily.

The third hypothesis of the study is "The professional Library manpower in college libraries in Kerala at present has not reached a level to develop skills and talents to carry out the duties and responsibilities in the changing IT environment".

The detailed analysis and interpretation of the second questionnaire (Questionnaire for librarian) and measurement of the mean scores of the elements of professional library manpower of the PLMM scale towards IT application have revealed that the present level of professional library manpower in college libraries in Kerala has not reached in a satisfactory level to carry out IT oriented services to the users.

Ten elements of manpower are included in the scale. Out of the ten elements of manpower in the PLMM scale, the first five elements (Knowledge, Skill, Ability, Talent and Aptitude) show very low score level compared with the second half of the five elements, which are psychological elements (Value, Attitude, Belief, Involvement and Interest). Attitude shows the highest mean score of 4.09 followed by Belief (4.08). i.e. Good level in the five point scale. The element having lowest mean score is Aptitude (3.14). Two very important elements such as Knowledge and Skill show comparatively very low score level of 3.29 and 3.16 respectively. It is only an average level. No element in the scale has a score level of 5 (i.e. Very Good level) in the five point scale. The total mean score of all the ten elements is the total mean manpower score. It is calculated as 3.54. It is an average score level. Average level of manpower is not sufficient to handle IT equipments and provide better IT oriented services in college libraries.

At present most of the professional librarians in college libraries in Kerala require more computer training to reach such a level for providing better IT oriented information services as understood in the analysis and interpretation. Therefore, the third hypothesis is fully substantiated.
The fourth hypothesis of the study is "There will be significant difference in the mean scores of the elements of Professional Library Manpower towards IT application when professional librarians are categorized on the basis of the select independent variables compared".

Twenty independent variables as seen in page no. 235 of chapter 6 are selected and put to statistical test to compare the significance of difference in the manpower level of professional librarians categorized on the basis of different characteristics of the college library, personal and professional status of librarians.

It is found from the result of the test that significant difference is found to exist between elements of professional manpower towards IT application and fifteen out of twenty independent variables selected for the study. Out of fifteen independent variables showing significant difference, in nine independent variables majority of the elements show high significant difference. They are

1. Professional qualification
2. IT course taken
3. Computer training taken
4. Participation in conferences / seminars
5. Papers presented in conferences / seminars
6. Computer experience
7. Frequency of use of computer
8. Self – development
9. Self – study behavior

No significant difference is found to exist between elements of professional manpower towards IT application and five independent variables selected for the study. They are

1. Management status
2. Financial nature
3. Sex
4. Professional experience
5. Number of refresher courses taken

Out of the twenty independent variables selected for the test, fifteen shows significant difference. Therefore, the fourth hypothesis is partially substantiated.

The fifth hypothesis of the study is "The professional library manpower development and utilization for IT application in college libraries in Kerala are far from satisfactory".

The low mean score level of the majority of manpower elements (The total mean manpower score is 3.54) in the PLMM Scale obtained in the analysis shows that manpower development towards IT application is far from satisfactory. The findings of the analysis of the data regarding the use of Information Technology in College libraries clearly shows the utilization of manpower for IT application is also far from satisfactory. This is also due to the lack of adequate technical knowledge and IT skills of professional librarians. Therefore the fifth hypothesis also proved to be true.

8.4 Recommendations for Professional Library Manpower Development

The aforesaid findings have implications for the authorities for streamlining the policy of professional library manpower allocation and development in college libraries in Kerala. Based on this, the following recommendations are proposed for improving the present library situation and for developing the level of Professional Library Manpower towards IT application which, the investigator believes, will pave the way for the betterment of manpower investment and development in the college libraries in Kerala.
8.4.1 Recommendations for improving the present library situation

1. Grading of college libraries has been done by the Government some 35 years back. Student strength was one of the criteria for grading college libraries. But now, since pre-degree course has been totally delinked from colleges student strength has come down to a considerable extent. Therefore appropriate norms may be fixed for grading of college libraries in this changed situation or grading may be done scientifically on the basis of the recommendations contained in the report of the Expert Committee on College libraries.

2. It is recommended that all college libraries should be kept open at least 10 to 12 hours per day and 2 PM to 8 PM on Sundays by implementing shift system. Fix a uniform pattern for working hours for all college libraries by Government and the College library should strictly follow the norms.

3. The librarian and the authorities should take special interest in collection development in college libraries and in maintaining a balance in the collection in terms of quality and quantity. Besides book collection, Audio-visual and non-book collection (electronic information resources) should also be included in the library collection. Now various reference sources are available in CD-ROMs and databases on CD-ROM will take less space for storage and give longer life.

4. Resource sharing should be encouraged and implemented to face the escalating cost of books. Computerized networking of all college libraries in Kerala must be done for resource sharing.

5. Most of the college libraries are understaffed. Irrespective of the grades of the colleges, each college should have a Grade I librarian. Academic status may also be given to librarians. Either the norms recommended for staff pattern in colleges by the Expert Committee Report (Joy Committee, 1994) or UGC staff formula may be implemented. The Joy Committee recommendations include improvement of qualification and status of
librarian to enable him to have a clear understanding of academic objectives essential for his working partnership with teaching departments. And permit the college librarian to be a member of the college council.

There is an urgent need to revise the UGC staff formula. It has lost its relevance in the light of changed conditions of library use. Adequate number of supporting staff must be provided and they should have knowledge of computers.

6. A college library should employ modern library techniques and devices in library operations and services so as to save the time of the users and the staff. A system of inter-library loan should be established among colleges in the university area and that the concerned university library will be the central library for coordinating and expending the services. The university libraries should form net-works of all college libraries affiliated to them and provide necessary guidance and assistance.

7. Now computers are available at affordable cost and the application of Information Technology in library service will certainly improve the quality of library services. Therefore the multimedia computer with Internet, E-mail facilities with library software package should be introduced for creating library databases of books and to provide computerized library services to the users. Uniformity in using library software is suggested. The computers in the campus should be networked in such a way that the resources of the library can be accessed by the students even in their hostel rooms.

8. In deciding the norms for funding college libraries the recommendations of the committees and commissions should be taken into consideration. The present rate of library fee collected from students is very low. Hence the rate of library fee should be reasonably raised. Special assistance from the UGC for collection development and application of Information Technology should also be explored. Separate funds should be allotted for the purchase and maintenance of IT equipments.
9. The present library building of majority of colleges is not functionally adequate in the IT environment. Separate library building with all infrastructure facilities should be provided to all college libraries.

10. The librarians of the college libraries should be allowed to participate in the preparation of the library budget and also he should have a role in acquisition and in making library policy.

11. Principals and managers should also be convinced to treat the librarian as part of the academic community and the college librarians should have a 'say' on all matters relating to college library services as suggested by many respondents. He should be treated on a par with teachers.

12. As far as pattern of organization is concerned majority of the librarians prefer central pattern to divisional and departmental pattern. A central pattern is recommended for efficient library service. As suggested by UGC the library should be centrally located for the easy access from all points of the college.

13. Management should accept the fact that library is an effective instrument of education and research and librarians perform a teaching role by instructing students formally and informally and advising and assisting faculty in their scholarly pursuits.

14. A college librarian should be part and parcel of the college. To be a professional, therefore, a librarian must know all the ethics of librarianship which is not just disseminating knowledge but making sure that library is a "temple of knowledge" – a cultural centre.

15. In all colleges, there should be effective co-operation among teachers, librarians and college administrators in meeting the needs of the students.

8.4.2 Better utilization of manpower

1. The Professional staff should be provided with all possible opportunities to update their knowledge for developing their individual competencies.
2. Provide better status, designation and scale of pay to professionals, which will lead to better satisfaction and results in better utilization of manpower.

3. The authorities should recognize its importance of libraries and follow a policy of providing encouragement for their efficient functioning.

4. The librarian should have a congenial environment that will provide him with the necessary stimulus and encouragement to apply himself to his work creatively.

5. In promotion policy of librarian merit and qualification shall find a place.

6. For better utilization of the existing staff, studies on job satisfaction should be conducted from time to time in college libraries in Kerala.

**8.4.3 Improvement in LIS education**

1. The library schools should incorporate latest developments in the field, both theoretical and technological in the curriculum.

2. The practical aspects of IT content of the course are to be explained and students should have the 'hands-on' experience of IT tools and equipments used for information storage and retrieval.

3. The restructured curricula will need further evaluation and improvement with the newer development that will take place in information and communication field in future.

4. UGC may encourage the teaching faculties to get advanced knowledge in the subject specially related to IT, besides the usual refresher/ orientation courses of UGC.

5. The existing regulation of LIS courses in Indian Library schools be modified uniformly so that three months internship in an advanced/ large library system (Preferably in a computerized library environment) be made compulsory before awarding M.L.I.Sc.
6. A national Institute of Library and Information Science should be established in order to achieve excellence in LIS education and Research.

8.4.4 Continuing education programmes for Manpower Development

1. Empowering our libraries with ICT can be systematically chalked out through continuous staff development programmes for the in service professionals while the new comers will get entrance to ICT if it is included as a core programme in the curriculum.

2. Continuing education programmes in the form of workshops, refresher courses, conferences, seminars, summer institutes, etc. should be organized for this purpose by suitable agencies. Such programmes are particularly necessary for those who work in libraries located at places where they have no access to literature on the subject and no opportunities for interacting with colleagues.

3. All practicing librarians should spend at least two weeks every year updating their knowledge.

4. Facilities for continuing education should be recognized as an essential part of manpower development programme in library and information field.

8.5 Areas for Further Research

During the course of this study few areas for further research are identified as follows

1. The present study can be extended to other types of libraries such as university libraries, special libraries and public libraries.

2. The study may be extended to semi-professional manpower who were excluded in the present study.

3. A detailed study of each elements of manpower can be conducted by including more items from the areas of interest in the scale. Separate scale for each element can be attempted.
4. A detailed study of the factors of manpower development can also be conducted especially the motivational factor of the same population.

5. Job satisfaction is also another important area for further research, which directly influence the development of library manpower.

8.6 Conclusion

In the present globalized world, traditional barriers of knowledge are fast disappearing. Today management of knowledge demands trained manpower with high specialized skills. This requires a distinctive type of education supported by constant training in highly accelerated communication technology. Library professionals who are well equipped with above training in communication technology enjoy greater prosperity, power and status in the profession. Qualitative improvement of the manpower in the profession is the need of the hour. The present study after identifying the important elements of manpower, scientifically derived a scale of measure for the purpose which is of great relevance in the IT environment.