CHAPTER  6

SUMMARY OF FINDINGS AND SUGGESTIONS

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CHAPTER 6
SUMMARY OF FINDINGS AND SUGGESTIONS

6.1 INTRODUCTION

The present study has been designed and executed as a descriptive-cum-assessment study of the key challenges, issues, problems and activities in the E-Journals collection development and management in special libraries in Kerala. This study analysed the general collection development, E-Journals collection development practices and procedures, impact of E-Journals consortia in E-Journals collection development and key areas of challenges, issues, problems and activities in the E-Journals collection development in the special libraries in Kerala.

This chapter contains summary of findings of the research study, tenability of hypotheses, suggestions for improving the E-Journals collection development and management in special libraries in Kerala and recommendations for further research.

6.2 SUMMARY OF FINDINGS

The data collected through various means were analysed in the previous chapter. The analysis of data has revealed a number of useful findings and they are summarised below:

- The study revealed that among the special libraries that have E-Journals collections in the State of Kerala, the number of Central Government run research institutions (21) are three times than that of the institutions run by the State Government (7).
• The study has also observed that seventy five percent of the participating institutions focused only on research activities and twenty five percent involved in both research and academic activities.

• All the participating institutions have libraries being run as the hub of their research support system, providing contemporary library and information services at varying degrees, and they are professionally being run by library/information professionals.

• Special libraries in Kerala have different types of resources in their collection and most of the libraries have good collection of resources like Books, Print and E-Journals, Bound Volumes, CD-ROMs etc. But only a few libraries are maintaining special collections like Cases, Patents, Videos and Government publications.

• The study revealed that there is a huge hike in the number of libraries which subscribed to E-Journals for the past five years from 2008 to 2012. In 2008, only 39.29 percent libraries were subscribing and getting access to E-Journals. But in 2012, all the special libraries under study had E-Journals collection in their library. This shows the importance of E-Journals in special libraries in Kerala.

• There is tremendous increase in the E-Journals collections in the special libraries in Kerala from the year 2008 to 2012, establishing the global trend that there is substantial increase in the penetration of E-Journals in academic and research libraries. The E-Journals growth rate is over 100 percent in many of the participating libraries. At the same time, there is also a decreasing trend observed in the number of print journals in most of the libraries under study, which again is a general trend in libraries, the world over.
• Though there is tremendous increase in the number of libraries subscribing to E-Journals and similarly, in the number of E-Journals in the special libraries over the years, still the number of E-Journals available in the libraries under study varied considerably, and it ranged from a mere two to a whopping 16000.

• Majority of the libraries have a library committee to take care of the collection development and management activities. Though the nature of terms of references of the library committees may vary from library to library, the very existence of a library committee will indeed help libraries in building up a strong and balanced collection. In that way special libraries in Kerala have a strong base for building up the collection in their libraries.

• Most of the special libraries in Kerala have collection development policies in place and these policies include E-Journals component. But lack of a well planned collection development policy for E-Journals affects the overall E-Journal collection development and management activities in the libraries under study.

• Identification and selection of E-Journals is an important step in the E-Journal collection development and there are a number of methods by which libraries can identify and select E-Journals for their libraries. It is observed that libraries are not following all the methods for the identification and selection of E-Journals for their libraries. Majority of the libraries are selecting E-Journals based on the recommendations of faculty/scientists and other users and some of the libraries identify and select E-journals based on the trial access offer provided by the publishers. But only a few libraries are using the discussion lists, peer library website and publishers catalogue as a method of identification and selection of E-Journals. The study underscores the need for critically analysing and following
all the possible identification and selection methods for selecting the best E-Journals for the library.

- Well defined evaluation criteria should be followed by the libraries for selection and renewal of E-Journals. Majority of the special libraries in Kerala consider user feedback and user suggestions duly vetted by the library committee as evaluation criteria for E-Journals selection. It is followed by institutional research interest, quality of the content, availability of back files and reputation of the publisher. At the same time, only few libraries consider the “cost factor” and “access features” as evaluation criteria for E-Journals. The study clearly pointed out the need for following all the criteria for the evaluating E-Journals.

- Majority of the special libraries in Kerala are aware of the E-Journals acquisition procedures, as evidenced by the data provided by each of them. It is also found that libraries of Central Government institutions are showing much initiative in the content verification, identification of pricing options and reviewing the license and business agreement as compared to the libraries of State Government institutions.

- The special libraries in Kerala are familiar with the workflows to be followed for the E-Journals acquisition. Majority of the libraries communicate with the E-Journal service providers and provide:
  
  o IP address or ask for user ID/Password for accessing the E-Journals beforehand;
  
  o Get persistent URL for accessing E-Journals;
  
  o Review the invoice and process the payment;
  
  o Sign the license agreement with the service provider;
- Test the access and arrange training on E-Journals;
- Notify various library departments for adding E-Journals in OPAC/intranet page/Library portal.

- Majority of the libraries under the study take renewal/cancellation decision of E-Journals based on the user feedback and suggestions. The recommendation of the library committee also plays a major role in the renewal/cancellation decisions. It is followed by relevance to research and curriculum, budget status of the library and ranking of E-Journals based on usage statistics. At the same time, comparatively less number of libraries considers cost benefit analysis and uniqueness of E-Journals as a criterion for renewal/cancellation of E-Journals. The study clearly indicates the need for using all the evaluation criteria for taking decisions regarding the renewal/cancellation of E-Journals.

- The consortia initiatives in special libraries are showing a rising trend and majority of the libraries from Central Government institutions are participating in various library consortia. It is observed that the State Government institutions are not seen actively engaged in the consortium activities.

- The study has made it clear that library consortia play a major role in the E-Journals collection development of special libraries in Kerala.

- It is observed that 19 libraries under study are participating in 11 different library consortia and all the libraries participating in consortia get major portion of their E-Journals through the consortia. It is also noted that two libraries are participating in more than one consortium. Some of the prominent among them include:
  - CERA consortium (Consortium for E-Resources in agriculture);
  - INDEST-AICTE consortium
o NKRC (National Knowledge Resource consortium of CSIR);
o Ministry of Information and Communication Technology’s MICT consortium;
o ISRO, ICSSR, UGC-INFONET, NIFT consortium, DRDO consortium, IISER Consortium and IIM consortium.

- It is observed that there is no coalition of library consortia available for special libraries in the State of Kerala. This may be owing to fact that the subject/research thrust areas in these research institutions vary, and hence they are participating in various consortia run by different ministries, departments etc. This shows the need for forming an apex consortium which shall address the needs of the special libraries in the state.

- Awareness of various subscription models and selecting the best one (or in combinations) suitable for the library is a major challenge being faced by the libraries. Consortia based subscriptions and use of consortia model for the subscription of E-Journals are popular among the majority of libraries under study. Among these, Central Government institutions are taking the lead in the consortia based subscription models. It is also observed that only a few of the participating libraries belonging to both Central as well as the state Government subscribe to E-Journals from aggregators. It was observed that a considerable number of libraries are subscribing to E-Journals directly from the publishers and only a few subscribe to E-Journals through vendors. In addition to this, a few libraries get free access to E-Journals as part of their print subscriptions and a few of the libraries collect open access E-Journals in their area of research and provide access to their user community.
• Adequate budget is the first and foremost important factor in E-Journal collection development and management. It is observed that the funding for E-Journals in the special libraries are not satisfactory and not sufficient to build strong E-Journals collection, in the wake of the rising journal costs, diminishing budget allocations and above all, the ever fluctuating Indian currency. It is also found that majority of the special libraries are spending less than quarter of their total budget on E-Journals subscription and it is quite inadequate in the case of the libraries attached to State Government research institutes in Kerala. The study clearly indicates the need for increasing the fund for E-journals in the Special libraries in Kerala.

• Moving towards E-Journals services demand libraries / institutions, develop the required ICT infrastructure at their end. The hardware and software resources were found to be more or less just meeting the basic and immediate requirements and hence needed upgradation and addition of resources.

• All the special libraries participated in the study are found to have computer local area networks (LAN) in place (wired in majority as well as wireless in few cases) and it is a prerequisite for providing internet based services like E-Journals and E-Resources. However, the quality of these LANs needed enhancement of capacity as well as modernisation. Technologies like Wi-Fi and Wi-Max bring considerable improvements in the communication of information and the study indicate the need for adopting these technologies in the libraries to provide effective and efficient internet based resources and services including E-Journals.

• All the libraries under study have internet connectivity. But the connectivity speed and the bandwidth rate are not satisfactory in many institutions. While
majority of the libraries/institutions under study have moved to leased line connectivity which is reliable and stable, it is observed that there is an increasing acceptance rate in broadband connectivity, which is relatively cheaper and economical. It is also observed that PSTN (Public Switched Telephone Network) based dial-up connectivity is being phased out in the participating institutions, with developments in technology.

- Almost half of the libraries under study consider cloud computing as a better option for libraries as far as library computing operations and electronic information services are concerned and among this, vast majority of libraries are from Central Government institutions.

- The study revealed that most of the libraries have library web page or website for showcasing their resources and services. But only a few libraries possess a full-fledged library web portal/website with multiple pages and features. Library Portal/website is very essential to provide internet based resources and services like E-Journals. A full-fledged library web portal/website is essential for providing efficient and effective access of E-Journals collection in a library. Majority of the libraries under study possess a single website or web page linked with institute’s home page. The study clearly states the need for developing a full-fledged library web portal/website with multiple pages and features which can act as a one stop shop for accessing the entire E-Journals collection in the library.

- Content Management Systems (CMS) help information professionals to manage the library website’s content concentrating its accuracy and value without thinking about technical aspects. The study revealed that only one-fourth of the
participating libraries are using content management system (CMS) in their library. Central Government institutions are found to be taking the lead in the use of CMS for the management of their library website content.

- The National Knowledge Network (NKN) is a state-of-the-art multi-gigabit pan-India network for providing a unified high speed network backbone for all knowledge related institutions in the country. NKN is intended to connect all the knowledge and research institutions in the country using high bandwidth / low latency network. Only a few libraries under study have National Knowledge Network (NKN) connectivity and all these libraries are attached to Central Government institutions. The libraries which are connected to NKN, use this service mainly for technical knowledge/information, virtual class room service, international collaborative research etc. The study clearly emphasises the need for improving the NKN connectivity and all research libraries should take initiative for getting NKN connectivity and it will definitely improve the research activities and information resources and services including E-Journals.

- There are a number of pricing models being practiced in E-Journals subscriptions. The pricing of E–journals may depend on the product type, period of subscription, the nature and size of the institution, number of users (FTE), consortia based pricing, bundle purchase or package deal etc. There are no uniform standards for pricing for E-Journals and the pricing strategies vary widely from publisher to publisher. It is observed from the study that a vast majority of the special libraries in Kerala follow pricing according to the period of subscription of E-Journals. Central Government institutions lead in choosing the pricing model based on period of subscription of E-Journals. Majority of
libraries resort to consortia based pricing model. It is also noted that majority of libraries belonging to the Central Government institutions follow consortia pricing model. It is also seen that some of the libraries under study has adopted the pricing based on number of users, while almost half of the libraries chose product type pricing model, as well as the same numbers chose package deal pricing and only few libraries adopted pricing according to the size of the institutions. The study revealed that E-Journal subscription through consortium helps libraries in financial savings. This shows the need for increasing consortia based subscription in the libraries of State Government research institutions in Kerala.

- The study revealed that E-Journals subscription/ licensing is one of the major areas of challenge faced by special libraries in Kerala. Different types and forms of licensing patterns are being practiced in E-Journal subscriptions and it is important for the libraries to review licensing terms, particularly those defining content and access to the E-Journals. Majority of the libraries consider copyright/fair use and usage statistics as an important license agreement term for the subscription of E-Journals. Libraries also consider perpetual access as an important license agreement term for the subscription of E-Journals. Other important license agreement terms used are the cost of the subscription. Majority of libraries of Central Government institutions use perpetual access and usage statistics as major license agreement terms for E-Journals subscription and it is followed by copyright and fare use and cost of subscription. Only few libraries take into account liabilities of the library and terms of payment and termination while signing the license agreement.
• E-Journal access management is an important concern for all the libraries and access to E-Journals is provided using a variety of access methods. Majority of special libraries in Kerala use IP authenticated access method for accessing E-Journals. The study also revealed that majority of libraries of Central Government institutions and all libraries of State Government institutions use IP authenticated access method. Only very few special libraries in Kerala use User ID/Password based access method for accessing E-Journals.

• The study has made it clear that E-Journals access models should take into account the on-campus as well as the remote users of the institution. Only very few libraries participated in the study provide Single Sign-on/Remote Access facility for accessing E-Journals. The study further shows that the libraries which provide this facility belongs to Central Government institutions and none of the libraries from State government institutions provide this facility for accessing E-Journals. Only very few libraries provide all type of access methods such as User ID/Password based access method, IP authenticated access system and Single Sign-On/Remote access method in their library and all these libraries belongs to Central Government institutions. It is imperative that libraries resort to access solutions which are simple and easy for the users to cope with and the access models should take into account the on-campus as well as the remote users of the institution. So the present access management systems in the majority of special libraries are not satisfactory and need improvement which will also take care of the remote access of E-Journals.

• Making the acquired E-Journals properly visible through a suitable website is a pre-requisite for their proper identification and information retrieval. But creating
a suitable interface for the dissemination of E-Journals is a complicated and time consuming task for libraries. The study revealed that a significant number of special libraries in Kerala provide access to E-Journals through their library website and an equal number of libraries in Central and State Government institutions provide E-Journals access through their library portals. It is also observed from the study that only a few libraries have integrated their E-Journals access through OPAC, and an even fewer number of libraries have integrated E-Journal access through their digital library services. According to the study, only a very small number of libraries use latest content retrieval technology like web-scale discovery services/federated search systems for accessing and retrieving the E-Journals.

- The study has made it clear that the existing E-Journal content discovery methods used by the majority of the special libraries in Kerala are not effective and there is a dire need for strengthening the available systems and introducing latest technologies for improving the content discovery of E-Journals in the libraries.

- Organisation of E-Journals is an important concern for libraries and libraries should adopt all possible methods for the organisation of E-Journals which helps in the quick and efficient retrieval of information. The study revealed that majority of the special libraries in Kerala use A to Z listing for organising E-Journals. Relatively less number of libraries adopts subject wise listing and publisher/vendor wise listing for organisation of E-Journals.

- Usage reports/statistics play an important role in the E-Journals collection development and the study disclosed that a significant number of special libraries
in Kerala collect and maintain usage reports/statistics of their E-Journals collection. Majority of the libraries depend only on publishers for getting usage statistics/reports. The usage reports collected from institutional level usage tracking methods give more reliable results. Only few libraries use this method for getting usage reports and all these libraries belong to Central Government institutions. The special libraries in Kerala should adopt proper measures for getting the usage reports which is considered as an authentic source of information for the selection, renewal and cancellation E-Journals in the library.

- Special libraries in Kerala are not giving serious attention for archiving of the E-Journals available in their collection. It is found that E-Journals archival initiatives in the special libraries in Kerala are not encouraging. As libraries are investing huge amount on the subscription of E-Journals, proper initiatives should be taken by the libraries for the archiving and preservation of their E-Journal collection. In cases of non-viability of local journal archives, libraries should ensure that perpetual access to the subscribed content is arranged through the publisher/s.

- Managing E-Journals requires a range of expertise, and sufficient staff strength is crucial for developing a strong E-Journals collection. The study clearly pointed out the need for appointing sufficient and professionally qualified manpower for the management of E-Journals.

- The staff involved in E-Journals collection development should be in a position to manage E-Journals efficiently and effectively. But special libraries in Kerala are not providing proper training for the staff members in the management of E-Journals. The training in each and every aspect of E-Journal is a pre-requisite
for better collection development and management of E-Journals. The management should do proper measures for arranging training program for staff members on a regular basis. The library professionals involved in E-Journal collection development need continuous skill developments in the area of E-Journal access management, technical knowledge of various search retrieval systems, managerial skills especially in pricing negotiation, license agreement, arranging trials, evaluating package deals etc. The training in each and every aspect of E-Journal is a pre-requisite for better collection development and management of E-Journals.

- In response to invited suggestions for better collection development and management of E-Journals from the librarians, majority of them pointed out the need for increasing the budget for E-journals subscription and opined that this will improve the E-journals collection development of their libraries. Many of them emphasised on the importance of E-Journals consortium in the E-Journals collection development and pointed out the need for strengthening the consortia initiatives in the special libraries in Kerala. A significant number of librarians pointed out the need for improving the collection development policy for the benefit of better management of E-Journals. They have also stressed on the need for increasing the E-Journals subscription in their libraries and pointed out the importance of E-journals in the research activities of their institutions. A significant number had also mentioned that availability of sufficient number of trained staff will help them in better management of E-Journals in their libraries. Few librarians informed that introduction of E-Resource management systems (ERMS) will help in the better management of E-journals in their libraries.
6.3 TENABILITY OF HYPOTHESES

On the basis of the findings drawn out of the study, the tenability of hypotheses formulated for the study are tested and presented below:

6.3.1 Hypothesis 1

E-Journals have emerged as a major source of scholarly primary information for the research and higher academic community in Kerala. Based on the findings of the study presented in the Tables 4.6, 4.8 and Figure 4.1 of chapter 4, it is found that there is a tremendous growth of E-Journals in the special libraries in Kerala and it is implied from the findings that E-journals have become a major source of information in the Special Libraries in Kerala. Thus this hypothesis is fully substantiated.

6.3.2 Hypothesis 2

Libraries are spending a good share of their budget for the subscription of E-Journals. Based on the findings of the study presented in the Tables 4.9, 4.10, 4.26 and Figures 4.2 and 4.7 of chapter 4, it is found that majority of the special libraries are spending only less than quarter of their total budget on E-Journals subscription and it is also found that allotted fund is quite inadequate for building strong E-Journals collection. Hence this hypothesis is not accepted.

6.3.3 Hypothesis 3

Special libraries are striving hard to overcome the issues relating to collection development of E-Journals.
On the basis of the data collected and analysed, and based on the findings of the study presented in the Tables 4.24 to 4.49 of chapter 4, it is found that special libraries in Kerala are facing a number of challenges and issues in the collection development of E-Journals. These results support this hypothesis.

6.3.4 Hypothesis 4

E-Journal consortia play a major role in the collection development of E-Journals.

The inferences drawn from the Table 4.23 and Figure 4.5 of chapter 4 clearly revealed that E-Journals consortia play a major role in the E-Journals collection development of special libraries in Kerala. Therefore this hypothesis is fully substantiated.

6.4 SUGGESTIONS FOR IMPROVING THE E-JOURNALS COLLECTION DEVELOPMENT AND MANAGEMENT IN THE SPECIAL LIBRARIES IN KERALA

The study has brought to light numerous and insightful findings that could address a number of pressing issues prevailing in the E-Journals collection development and management activities in the special libraries in the State of Kerala. Following are the suggestions submitted to improve and strengthen the present E-Journals collection development and management practices in special libraries in Kerala.

1. Special libraries in Kerala should initiate concerted and coordinated efforts to increase their E-Journals collections. Though there is a tremendous increase in the number of libraries subscribing to E-Journals and in the number of E-Journals in the special libraries under study over the years, still the number of E-Journals available in the libraries varies and it ranges from two to 16000. Libraries should
therefore adopt all possible methods and ways towards increasing and improving the E-Journals collection.

2. A well planned and comprehensive collection development policy for E-Journals should be developed by special libraries. Though most of the special libraries in Kerala have collection development policy and these policies include E-Journals component, lack of a well planned collection development policy for E-Journals affects the overall E-Journal collection development and management activities in the libraries under study. A policy which takes into account the complete collection development procedures such as selection, evaluation, acquisition and renewal/cancellation of E-Journals and the major areas of challenges in the collection development and management of E-Journals should be framed in the special libraries in Kerala and this step will definitely help in building high quality and strong E-Journals collection.

3. Identification and selection of E-Journals is an important step in the E-Journal collection development. But special libraries in Kerala are not following all the methods for the identification and selection of E-Journals for their library. So the special libraries in Kerala should critically analyse and follow all the possible identification and selection methods for selecting the best E-Journals for the library.

4. Well defined evaluation criteria should be followed by the libraries for selection and renewal of E-Journals. Once the E-Journals are identified for subscription, each journal needs to be evaluated based on certain evaluation criteria. The special libraries in Kerala should follow all these processes for evaluating the E-Journals in order to select the best E-Journals for their libraries. Renewal/cancellation decision should be based on the actual usage of the
E-Journals, reliability of the interface, and the responsiveness of the provider. Thus evaluation of the E-Journals before the renewal process is critical.

5. Library consortia play a major role in the E-Journals collection development of special libraries in Kerala. But there is no unified or an apex consortium available for special libraries in Kerala. As the subject/research areas in the research institutions vary, they are seen participating in different consortia run by various Ministries, departments etc. This scenario strongly suggests that an apex consortium for special libraries should be formed and this will definitely help in increasing the E-Journals collections in the special libraries in Kerala.

6. Awareness of various subscription models and selecting the best one suitable for the library is a major challenge faced by the libraries. Special libraries in Kerala should have good knowledge of various subscription models offered by the publishers and they should adopt all the possible subscription models to build a strong E-Journals base in their libraries.

7. Adequate budget is the first and foremost important factor in E-Journals collection development and management. In order to subscribe to, and manage E-Journals collections, substantial amount of money is required. But the existing budget allocation for E-Journals is not satisfactory in the special libraries in Kerala and it is quite inadequate in the case of the libraries attached to State Government research institutes in Kerala. Initiatives should therefore come from the authorities for the provision of separate and sufficient fund for E-Journals collection development. Systematic utilisation of fund is also essential for building up an optimum collection of E-Journals.

8. Moving towards E-Journals requires libraries to develop ICT infrastructure at their end. The special libraries should have separate computers/servers for various
services including E-Journals management. Technologies like Wi-Fi and Wi-Max bring considerable changes in the communication of information and the libraries should adopt these technologies in their libraries to provide effective and efficient internet based resources. Libraries should have good internet connectivity and high speed bandwidth. Libraries should also have National Knowledge Network (NKN) connectivity. There is also a need for introducing cloud computing in the libraries for better computing operations and services. Special libraries should develop a full-fledged library web portal/website with multiple pages and features which can act as a one-stop-shop for accessing the entire E-Journals collection. Libraries should also implement content management systems for the management of their library website content. Sufficient ICT infrastructure is very much essential for the successful implementation and development of E-Journals collections. But most of them do not make the effective use of information technology for E-Journals collection development. The special libraries in Kerala should make appropriate measures for developing excellent ICT infrastructure in order to develop a good E-Journals collection.

9. There are a number of different pricing models being practiced by publishers in E-Journals subscriptions. The pricing of E–Journals are dependent on the product type, period of subscription, according to size of the institution, number of users (FTE – Full-Time Equivalent), consortium based pricing, bundle purchase or package deal etc. It is observed that there are no standards in the pricing of E-Journals and the pricing strategies vary widely from publisher to publisher. The libraries should review each of the pricing models and decide on the best that meet the needs of the library. Proper negotiations with publishers and suppliers on pricing are also essential for getting the best price for the library. While finalising
the pricing model, libraries should give priority to the type of the institution, size of the users, subscription period of E-Journals, access to back files etc. and each of these factors have a direct and longstanding impact on the price of E-Journals.

10. Licensing is one of the major areas of challenge faced by special libraries in Kerala while subscribing to E-Journals. Library should critically review licensing terms, particularly those defining content and access to the E-Journals. Licenses must be carefully reviewed to ensure that the library maintains fair use rights for its users and that the E-Journal is easily accessible to all users. The agreement should include clearly written clauses on authorised users, remote access, user authentication-through password, IP, or other methods, fair use rights for library and users, the cost of the subscription, perpetual access, usage reports, liabilities of the library, terms of payment and termination of the contract etc. The library collection development team should take into account this area of activity with priority while subscribing E-Journals.

11. E-Journals collection development team should give importance to the E-Journals access management methods used in their libraries and they should consider the access requirements of both on campus users and remote users while taking decisions on access methods. Similarly libraries should select access solutions which are simple and easy for the users to cope with.

12. E-Journal content/resource discovery methods used in the special libraries needs to be strengthened. Libraries should improve the existing content/resource discovery methods like OPAC, library website, digital library etc. and also introduce latest technologies and services like Web-Scale Discovery/Federated search systems for discovering and retrieving E-Journals.
13. Libraries should adopt all possible methods for the organisation of E-Journals in their collections such as A to Z listing, subject wise listing and publisher wise listing which helps in the quick and efficient retrieval of information.

14. Usage reports/statistics has an important role in the E-Journals collection development. Libraries should take continuous and consistent efforts for getting the usage reports on regular basis from publishers. Apart from this, libraries can get more reliable usage report at the institution level by implementing usage tracking software/systems. The special libraries in Kerala should adopt proper measures for getting the usage reports which is considered as a source of information for the selection, renewal and cancellation of E-Journals in the library. Provisions should be made to extend the usage statistics at regular intervals, complying with internationally accepted standards such as ICOLC (International Coalition of Library Consortia)’s guidelines for Statistical Measures of Usage of Web-based Information Resources, COUNTER (Counting Online Usage of Networked E-Resources)’s Code of Practice or SUSHI (Standard Usage Harvesting Initiative). The usage report/statistics acts a guiding tool in evaluating the effectiveness of E-Journals and for making important decisions including the selection, renewal/cancellation of E-Journals and budgeting decisions.

15. Proper measures should be taken by the libraries for the archiving and preservation of their E-Journals collection. As libraries are investing huge amount on the subscription of E-Journals, appropriate action should be taken by the libraries for the archiving and preservation of their E-Journal collection. Alternatively, taking a cue from the latest developments in cloud technologies, special libraries should work out strategies for cloud based/publisher-hosted long-
term perpetual access of the archival collections of E-Journals, with the publishers concerned.

16. Managing E-Journals efficiently requires a range of expertise, adequate staff, and availability of high-end infrastructure in terms of hardware and communication facility. Sufficient staff strength is crucial for developing a strong E-Journals collection. Libraries should provide sufficient manpower for the collection development and management of E-Journals.

17. The staff involved in E-Journals collection development should be in a position to manage E-Journals efficiently and effectively. The management should do proper measures for arranging training programs for staff members on a regular basis. The library professionals involved in E-Journal collection development needs continuous skill development in the area of E-Journal access management, technical knowledge of various search retrieval systems, managerial skills especially in pricing negotiation, license agreement, facilitating trials, evaluating package deals etc. The training in each and every aspect of E-Journals collection development and management is the pre-requisite for better collection development and management of E-Journals.

18. As the number of E-Journals register continuous increase in the libraries, it is essential to have a system that supports management of the information and workflows necessary to effectively select, evaluate, acquire, maintain, renew/cancel and provide informed access to the E-Resources in accordance with their business and license terms. The Electronic Resource Management System (ERMS) are a welcome service to this end, and it is recommended that the special
libraries in Kerala embrace such ERMS towards achieving efficiency in the E-Journals collection development and management.

6.5 AREAS FOR FURTHER RESEARCH

This study has systematically looked into the multitude of activities and the key challenges, issues, problems relating to the E-Journals collection development and management in special libraries in Kerala. Based on the inferences and the insights gained from the study, the investigator would like to suggest the following as topics that could be considered for further studies:


6.6 CONCLUSION

This study has undoubtedly revealed that E-Journals have become a significant and distinct collection in the special libraries in Kerala and they are playing a substantial role in improving the teaching, learning and research activities of the research institutions. The special libraries in Kerala have been actively involving in the E-Journals collection development activities. The present study has analysed and provided the summary of the key areas of challenges, issues, problems and activities in E-Journals collection development practices and procedures followed in the special
libraries in Kerala. It is found that all the libraries under study have been subscribing to E-Journals and there is a tremendous increase in the number of E-Journals over the years, although there is a wide range of disparity observed in the number of E-Journals available in these libraries. This shows the inadequacy in the E-Journals collection development practices followed by the special libraries in Kerala. Though the libraries are aware of and familiar with the E-Journals collection development procedures such as identification and selection, evaluation, acquisition and renewal/cancellation of E-Journals, it is found that they are not following each of these procedures systematically. The study also focused on the importance of library consortia on E-Journals collection development and found that majority of the libraries builds their E-Journals collections by participating in various consortia. It is observed that there is no unified, centralised or an apex consortium available for the special libraries in Kerala. Libraries are facing a number of issues and challenges in the collection development and management of E-Journals in their libraries. Though these libraries possess basic ICT infrastructure, majority of them do not have separate servers for specialised services, good internet connectivity and high speed bandwidth, full-fledged web portal etc., which are essential for the successful implementation and development of E-Journals collections and service delivery. Similarly budget allocation for E-Journals is not satisfactory in special libraries in Kerala. Majority of the libraries do not follow and verify all the subscription models and pricing models while subscribing to E-Journals. Though majority of the libraries are aware of the license agreement terms, only few of them are applying them while subscribing to E-Journals. Majority of the libraries do not provide Single Sign-on/Remote Access facility for accessing E-Journals. The study clearly pointed out the need for improving the E-Journals delivery methods, resource discovery methods and organisation of E-Journals in the
special libraries in Kerala. The study also stresses on the need to introduce latest technologies and services like Web-Scale Discovery/Federated search systems for discovering and retrieving E-Journals. It is also found that special libraries in Kerala are not giving serious attention to the archiving of the E-Journals collection in their libraries. Also, it is observed that these libraries are yet to take definitive advantage of the latest developments in cloud technologies, by working out strategies for cloud based/publisher-hosted long-term perpetual access of the archival collections of E-Journals, with the publishers concerned. The study pointed out the need for allotting separate manpower for the management of E-Journals and need for providing training for the staff members in the management of E-Journals in the special libraries in Kerala. The study also clearly states the need for introducing Electronic Resource Management Systems (ERMS) for more efficient and effective management of E-Journals in the special libraries in Kerala. It is therefore strongly felt that the suggestions and recommendations of the study would be of relevance and use to the special libraries under study. The Best Practice Manual for E-Journals collection development and management, furnished in this thesis as Chapter 5 recommended for the special libraries in Kerala, which systematically outline the step-by-step activities involved in the collection development and management of E-Journals will definitely improve the existing E-Journals collection development practices and help in adopting new strategies for E-Journals collection development and management. To conclude, the investigator feels contented that the study has been quite fulfilling as well as fruitful, as it has revealed and brought to limelight, quite an interesting set of factors relating to the challenges associated with E-Journals collection development and management.