CHAPTER 5

E-JOURNALS COLLECTION DEVELOPMENT AND MANAGEMENT IN SPECIAL LIBRARIES IN KERALA: A BEST PRACTICE REFERENCE MANUAL

➢ Purpose and scope
➢ E-Journals collection development policy
➢ Planning and budgeting
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5.1 PURPOSE AND SCOPE

The research study entitled “E-JOURNALS COLLECTION DEVELOPMENT ISSUES IN THE SPECIAL LIBRARIES IN KERALA: A RESEARCH STUDY” has candidly revealed that E-Journals are now an important part of a special library’s growing collections. This document is intended as a ready reference manual and a ready reckoner for the library and information professionals in addressing their ongoing activities on E-Journals collection development and management. The manual attempts to present most of the significant planning, preparations, processes and procedures related to E-Journals collection development and management. Almost all the points/facets/processes outlined in this manual have already been discussed and presented in various chapters of this thesis. It is presumed that the manual will provide a one-stop-shop, and a set of digested practice procedures and processes on the range of issues presented by E-Journals.

5.2 E-JOURNALS COLLECTION DEVELOPMENT POLICY

The process of collection development must be carefully planned and constantly evaluated and monitored. In order to develop a balanced, user-oriented and active collection, a well planned and thought out system has to be evolved by the library and information managers in close association with the representatives of various user constituencies. The entire process of E-Journals subscription and management becomes easier for the library management when a collection development policy is in place. Such a policy provides a framework for decision-making and it is a necessary planning tool, the use of which leads to consistent, informed decision. It is a blueprint for the collection developers and helps them to ensure uniformity in procedures and
appropriate balance in the library collection. The policy serves as a supporting
document for the library in each phases of the E-Journal collection development.
The basic factors to be considered while developing an E-Journals collection
development policy are as follows:

- It should articulate the institutional mission of the library, the purpose of the
  policy and the audience for whom it is developed.
- It should describe the community to be served including the users, academic
  program and research focus of the institution, off-campus users, and their needs.
- It should provide criteria and guidelines for the selectors.
- It should identify selection tools appropriate for the library.
- It should address access versus ownership issues as to whether electronic access is
  sufficient to meet the user’s needs or whether the library should add print
  subscription.
- It should include guidelines for weeding, cancellation, retention, preservation and
  replacement of resources.
- It should include cooperative collection development issues such as the role of
  consortia.
- It should include general guidelines for licensing requirements for E-Journals
  such as the number of authorised users at a time, remote access availability, and
  whether it allows various library services such as interlibrary loans and digital
  reserves.
- It should cover the process by which selection recommendations or decisions are
  made, that is whether selections made by committee or by individuals.
• It should include expectations from providers with regard to training, technical support, compatibility with existing platform and so forth.

5.3 PLANNING & BUDGETING

Depending on a scientific assessment of E-Journals requirement for the upcoming year and the ensuing period, the library should work out a well planned and meticulously designed budget which is in sync with the goals of the institute, capable of matching the user needs, and suiting to the budgetary provisions of the institution. Without proper budgetary allocation provision in place for E-Journals, it is very difficult to develop need based and balanced collection. Budget should also be allocated for infrastructure building and maintenance of the infrastructure. The process should be initiated at least six to nine months in advance so that the budget will be granted and ready by the time enquiries and orders are being released.

5.4 ICT INFRASTRUCTURE

Sufficient ICT infrastructure is very much essential for the successful implementation and development of E-Journals collections. The libraries should possess high-end ICT infrastructure such as good quality servers, workstations, networks, Internet connectivity, High speed bandwidth, good library website/portal for building and managing a strong E-Journal collection. As new developments in hardware and software are taking place, libraries should make appropriate measures for upgrading and developing excellent ICT infrastructure in order to develop a good E-Journals collection.
5.5 E-JOURNALS COLLECTION DEVELOPMENT PROCESSES

E-Journals collection development is a series of meticulously planned and executed activities. Various processes and procedures followed in the E-Journals collection development are as follows:

5.5.1 Identification and Selection

There are basically two scenarios prevalent in E-Journals subscription process, and they are subscription of new resources, and renewal of the existing resources. Each year, the library solicits suggestions and recommendations from the user community, on the new set of E-Journals to be included into the collection. Newly recommended E-Journals are put on free trial access by the users for a short period and based on their feedback and availability of funds, the E-Journal/s is/are recommended or rejected. Publishers of the E-Journals could also be invited for a demonstration/orientation of their services, which will provide a familiarity with the product/service to both the users as well as the library staff. Another source of identification of E-Journals is to enquire with other librarians already subscribing to the journals about their experience. Libraries also get knowledge about new E-Journals from publisher’s catalogues, peer library website, discussion lists etc.

Recommendation of the existing titles for renewal are evaluated based on a set of laid down criteria such as ranking of the E-Journals based on the usage statistics, user feedback/suggestions, cost benefit analysis, relevance to research and curriculum, uniqueness of E-Journals to avoid duplication/overlap, library committee recommendations, and budget status of the library.
5.5.2 Evaluation of E-Journals

Selection of E-Journals in a library should be based on proper evaluation. Once the E-Journals are identified for subscription, each journal need to be evaluated based on well laid out evaluation criteria. Criteria to evaluate the suitability of E-Journals include: The coverage of the journals; Quality of the content; Subject/topic matching with the institutional research trust areas; Availability of archives/ Back file access; easy accessibility; Cost; Technical support from publishers; Subscription models available; Options for consortia based subscription etc.

The evaluation of the E-Journals helps the librarians in assessing the quality of the content, cost, reliability of the publishers, subscriptions models available, coverage of the journals, availability of back files etc. The libraries should carefully follow all these evaluation criteria in order to select the best E-Journals for their libraries.

5.5.3 Acquisition of E-Journals

The acquisition is the third step in the E-Journals collection development process. Once the selectors have chosen E-Journals for the library collection, the standard acquisition process of locating and acquiring the E-Journals takes place. E-Journals can be acquired in many ways. E-Journals can be subscribed directly from publishers, through second party/vendors, through aggregators. In addition to this, libraries can build their E-Journals collection through participating in various consortia. Each of the subscription models has varied features and drawbacks. As the cost of E-Journals are sky rocketed, new subscription models such as pay per view, limited period access rights, perpetual access rights etc. are evolving. Libraries should have a good knowledge of various subscription models offered by the publishers and choose the best models which suit for their libraries. The acquisition include various processes
such as Verifying the content; Identifying various pricing options, Reviewing the license and business agreement and Ordering and acquiring the E-Journals.

5.5.3.1 Verifying the content

Verification of content is an important step in the acquisition of E-Journals. The verification of content include finding out various details such as the content provider of the E-Journals, content coverage, cost, frequency of updates, search retrieval capabilities etc. Same journal may be available in different E-Journals databases. So it is important to know the various content providers’ platforms and collect details relating to the pricing, content coverage, interface, search retrieval capabilities. Librarian should work very closely with the publishers/ content providers for getting clarification on various aspects of the E-Journals collection.

5.5.3.2 Negotiations and Pricing options

Two of the major challenges being faced by libraries across the world are the ever increasing cost of publications and the continuously diminishing library budgets. Libraries belonging to developing countries are challenged with one more crucial issue which eats into their already weak budget, and that is the fluctuating currency value (inflation) against the US Dollar. Libraries would not be able to meet both ends unless they evolve newer strategies to circumvent the above menace. Negotiations and pricing options with the respective publishers on the listed price of the E-Journals are therefore an essential part of the acquisition process, whether it is individually handled or done through a consortium.

Different pricing options are practiced and there are no consistent standards for pricing. Pricing of E-Journals may be based on the product type, it may be based on the size of the institution, number of users, Full-Time Equivalent (FTE), consortia based
pricing, journal package deals etc. Librarians need to explore various pricing options before finalising the product/titles. Libraries can choose a combination of various pricing models from various publishers. Identifying the most suitable pricing option for the library is an important step in E-Journals procurement.

5.5.3.3 Reviewing the License Agreements

Once the titles to be procured and the sources of acquisition are finalised, the next step in the E-Journal acquisition process will be the reviewing of the license agreement.

(i) Licensing: Licensing is one of the major areas of challenge faced by libraries while subscribing to E-Journals. There are a number of issues that the library should be highly careful while entering into E-Journals subscription agreement. Catches can come in multiple forms. It is important for the libraries to review licensing terms, particularly those defining content and access of 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 with minimal monitoring or tracking requirements. The contract should include clearly written clauses on authorised users, remote access, user authentication - through password, IP, or other methods, fair use rights for library services including interlibrary loans, document delivery, etc. Licenses should also include the cost of the subscription, perpetual access, protection of privacy if tracking or monitoring systems are used, usage statistics, vendor and organisational liabilities, terms of payment and termination of the contract - when, why and how. Language of the license is another factor to be considered. Clarity and standardisation in license agreement would be beneficial for
librarians as well as publishers. The license agreement contains various clauses that define the rights of the libraries, users and content providers. Licenses must be carefully reviewed and librarians should ensure that each term in the license is clear and also make necessary changes in conformity with the library’s E-Journals acquisition policy. Clarity in license terms would help both the libraries and the publishers in signing the agreement in a meaningful way.

(ii) **Legal Issues:** Legal disputes are bound to emerge as most of the service providers are from outside the country, and as the licensing agreement and real life operations of E-Journals service delivery involve complex processes. In most of the publishers’ agreements, the practice is to refer all legal disputes to the judiciary provisions of the country of origin of the service provider. This could lead to several conflicts of interests, especially from the point of justice to the Indian side. The primary reason for this concern being, that the activity is taking place in India, and not in a foreign country, though the service provider is a foreigner. It is therefore recommended to provide a clause which takes care of the arbitration of all such disputes to include the jurisdiction of India, in the licenses/agreements.

(iii) **Support from the Service Provider:** Libraries need to ensure the reliability and dependability of the service provider, to the range of technical and user support services they are able to provide. It is recommended to ensure the range of support from the service provider, including free trial and product demonstration, staff/user training and support, interface customisation, data archiving, usage statistics etc.
5.5.3.4 Placing of the Subscription Order and Acquiring the E-Journals

The final step in the procurement of E-Journal is placing the order and acquiring the E-Journals. Once the license agreement is signed, librarians can start work relating to ordering and acquiring the E-Journals. Before processing the invoice, librarians should verify and confirm the access of the content. After confirming the access, librarians must review the invoice and ensure that charges are as per the agreement and then process the payment. Librarians should notify various library departments for adding the E-Journals in OPAC/Intranet pages/Library portals etc. She/he should also inform the users about the availability of the new resource and also schedule training on E-Journals. Management of the acquired E-Journals is also becomes a part of librarians responsibility and should ensure an uninterrupted access to the subscribed content.

5.5.4 Renewal/ Cancellation of E-Journals

An E-Journal subscription is valid for a defined period of time. When the period ends, the librarian must either renew subscription or cancel it. Unlike the decision at the selection phase, renewal/cancellation decision is based on the actual usage of the resource while it was available, reliability of the interface, and the responsiveness of the provider. Thus evaluation of the resources before renewal/cancellation process is critical.

The evaluation criteria to be considered for renewal/cancellation decision include ranking of the E-Journals based on the usage statistics; user feedback/suggestions; cost benefit analysis; relevance to research and curriculum; Uniqueness of E-journals to avoid duplication/overlap; library committee recommendation; budget status of the library. Librarians should carefully follow these evaluation criteria while taking the renewal/cancellation decisions relating to
E-Journals. This will help libraries to ensure that library budget is spending on resources that support research/academic activities their libraries.

The various processes and procedures in the collection development of E-Journals are shown in the following figure:

![Figure 5.1 Components of E-Journals Collection Development Processes](image-url)
5.6 E-JOURNALS CONSORTIA IN COLLECTION DEVELOPMENT

Consortia approach to E-Journals collection development is a time tested and field proven cooperative and collaborative movement. The movement has seen actively progressing in India during the past one-and-half decades. Today, there are more than a dozen of national level consortia in operation in the country in varying degrees of success. A set of like-minded and forward looking libraries arrive at a consensus to collaborate and cooperate to form an E-Journals Consortium with a view to licensing the E-Journals / E-Journal collections and other E-Resources. Consortium approach to library collection development has been proved to be a win-win situation to both libraries as well as the publishers, as libraries get access to wider set of digital collections (increased resource base) by paying a bit extra, whereas the publishers get excess customers (increased user base) at one go, while embracing the consortium.

5.7 E-JOURNALS MANAGEMENT

Managing the E-Journals collection available to the institution which are constantly increasing in numbers into hundreds and thousands, is a challenging task. There is amazing penetration of learning resources and scholarly digital information finding their way into the libraries through a variety of forms and in this, E-Journals form a substantial part. Seamless dissemination of scholarly information by means of content aggregation and content integration through library portals are the recommended strategy sets to be adopted and practiced by the 21st century libraries. For ensuring the fool-proof solution of the journal’s website, it is recommended to provide the persistent URL (PURL) of the E-Journal website/link. Additionally, a
number of other aspects of E-Journals management are to be considered and they are outlined below:

5.7.1 Access Management

Access management of E-Journals is of paramount importance and libraries adopt a number of different strategies to achieve them. Libraries should consider the access requirements of both on campus users and remote users while taking decisions on access methods. Another important aspect is the local administration of access management system. Library staffs are to be properly trained in the administration of access management system and the users are to be properly oriented towards the effective and efficient use of E-Journals.

5.7.1.1 Access Methods

Access to E-Journals is provided using a wide variety of access methods to meet the users’ needs. Currently, various access methods are available such as Internet Protocol (IP) address activation or by user id/password, Single Sign on/Remote Access methods using proxy server, VPN Software etc. IP based authentication is proved to be the best method for giving enterprise-wide E-Journal access to users. Library should also consider single sign-on/remote access facility to the users to access the E-Journal collections.

5.7.1.2 Single sign-on / Remote Access

E-Journals Access methods adopted by libraries should take into account the on-campus as well as the remote users of the institution. Remote access is concerned with providing access to the subscribed E-Journals and other E-Resources from outside the physical library or the campus network via special proxy servers or other web-based
authentication. Single Sign-on/Remote Access method helps the user to be authenticated once, and to access multiple services. It also provides fast and secured remote access facility to E-Journals and E-Resources. Single sign-on (SSO) systems refers to a type of authentication system where a user only has to be authenticated once, and is able to access multiple services where he has access permission, without having to enter his password again. SSO system helps the users to access the resources very fast and secured. Single sign-on systems provide multiple benefits to libraries by relieving the users from remembering different user names and passwords; time being spent for declaring identities; supporting conventional authentication such as Windows credentials (i.e., user name/password); hassle free secured access provisions and centralised reporting for compliance adherence.

The remote login based SSO system work basically by installing the SSO server onsite and allowing the users to login from remote locations. Users will first register with the system and the system will enroll them as authorised members. Each time users will login to the proxy server whenever they want to access the institutional licensed content.

The advantage of SSO is that it uses the existing centralised authentication servers and it combines this with techniques such that the users will have to enter their credentials just once. Considering the security aspects and legal implications of the misuse of E-Journals and E-resources, librarians should take initiatives in implementing single sign-on based remote access systems in their libraries.
The following figure shows the working model of a single sign-on/Remote Access system.

![Diagram of Single Sign-On/Remote Access System](image)

**Figure 5.2 Working Model of Single Sign-On/Remote Access System**

### 5.7.1.3 Accessibility and availability

Access to E-Journals should be stable and reliable. The E-Journals should be available and accessible on a 24 X 7 formula, with the assurance of maximum uptime. Advance notifications should be received about the downtime as well as system maintenance etc. Each journal should have a Persistent URL (PURL) for providing access to the publication. Library should also ensure professional and accurate technical support to users as and when required.
5.7.2 Resource Discovery

Dissemination of the acquired E-Journals to the user community is a must for proper information retrieval. The users must be made well-versed with the available E-Journals and it may be done through different mechanism and the popular methods among them are library website or portal and online public access catalogue (OPAC). Library website is an important medium for accessing and showcasing the E-Journals collection and it plays an important role in promoting and maximising access to E-Journals. Library portals act as a one-stop-shop for accessing the entire E-Journals collection in a library. Online public catalogues are the primary means of displaying library collection and libraries can provide access to their E-Journals available to their users through Online Public Access Catalogue (OPAC).

5.7.2.1 Web-scale Discovery system

Web-scale discovery system is an advanced concurrent search and retrieval system from multiple services such as E-Journals, Journals Databases and other E-Resources. This has become essential owing to the increase in the number of E-Journals and other E-Resources and as a result, making it difficult for the libraries to manage these resources. Each service provider follows their own access management system. Multiple search boxes on the same web portal can confuse the users and they find it difficult to retrieve the required information from the massive resources and search interfaces. Integrating the resources of library portal into discovery service is the need of the time. Web-scale discovery service provides a single search interface that allows users to search multiple online resources simultaneously. A Web-Scale Discovery Service is a search interface to pre-indexed metadata and/or full text documents. It can be defined as a pre-harvested central index coupled with a richly
featured discovery layer providing a single search across a library’s local, open access, and subscription collections. Discovery tools aim to discover/provide access to all formats of library collection regardless of whether it resides within the physical library or among its collections of electronic contents, spanning both locally owned materials and those accessed remotely through subscription.

The main components of a web-scale discovery system consist of a pre-harvested central index and a discovery layer. Central Index is a collection of pre-harvested and processed metadata and full text that comprises the searchable content of a discovery service. Central index is also known as the base index, unified index, or foundation index. The contents in the central index include: Library supplied data such as MARC from Library catalogues and metadata from local digitised collections and institutional repositories; Open access and public domain data such as citation metadata, indexing and abstracts, and full text from open collections and indexes; Publisher metadata and full text which includes citation metadata, author-supplied abstracts and keywords, and full text of documents; Web-Scale Discovery service licensed materials and mutually licensed contents. Discovery layer consists of the user interface and search system for discovering, displaying, and interacting with the content in library systems, such as a discovery service central index. While the central index is the heart of any discovery service, the discovery layer is the public face.

Figure 5.3 shows the working model of a Web-Scale Discovery system.
Web-Scale Discovery services discover and deliver the resources and the main advantage of such system is that they provide access not only to the proprietary E-Journals and other E-Resource content but to local library collections as well. The important features of web-scale discovery services include: comprehensive content; single search box; ability to provide quick results ranked by relevancy; option to refine the search; modern interface offering functionality such as faceted navigation to drill down to more specific results; filter on licensed materials from that particular library possible; more flexibility in operation and allow a library greater possibility to customise their services; single point entry for all library information; integration with social network sites; RSS feeds/search alerts tools allow users to follow the same search over a period of time and keep track of any change or updates; ability to filter, sort, save, print, export and e-mail search results.
The interface frames of a web-scale discovery service are shown in the following figure.

Web-Scale Discovery services are the integral part of library services and it saves the time of the researchers and helps the libraries in improving and increasing the usage of its E-Journals and E- Resources. Though new, discovery services are gaining importance in the libraries. More and more libraries are adopting these technologies as a tool for accessing and managing their E-Journals and E-Resources.

Creating a user-friendly interface is a prerequisite for effective dissemination of E-Journals. The interface should be user-friendly, hassle-free and intuitive. It should provide all possible user approaches such as keyword and Boolean searching, full-text searching, truncation, browsing (index and title), relevancy ranking, thesaurus and search history. The system should also provide range of export options such as e-mail, printing, and downloading etc. Whatever be the method used, the ultimate aim of the library is to provide an uninterrupted and hassle free access to the content to its user community.
5.7.3 Staff/User Training and Support

The collection development and management of E-Journals involves a series of workflow. Consistent and meticulous working and follow up is required for efficient and effective E-Journals management. Managing E-Journals requires a range of expertise and sufficient staff strength is crucial for developing a strong E-Journals collection. The effective involvement of library staff members are very essential at each stage of activities relating to the selection, evaluation, negotiation, acquisition, renewal and management of E-Journals. As such, the library staff should not only be technically competent but should also have excellent managerial and leadership skills. Hence, library staff training is an essential component of E-Journals management and should be given highest priority by the libraries. There is a variety of ways to learn about E-Journal management such as attending in-house training programs, training programs arranged by the publishers and vendors, attending conferences/workshops, training through web based tutorials etc. Libraries should ensure that service providers are extending training, along with detailed documentation as well as online manuals, for hassle-free use of the service. Regular user orientations shall ensure that the products are used effectively.

5.7.4 Access to Back Files / Data Archiving

E-Journals are remotely located and licensed for a particular period. Libraries have access to these resources under the terms and conditions of the agreement. Purchase or subscription of E-Journals should include provisions for perpetual access to that information. Library should continue to have access to the data if the subscription is cancelled, publication ceases, content is sold to a different publisher, or the technological platform changes. Libraries should ensure that E-Journal license
agreement should provide for permanent access to the content purchased under the subscription.

5.7.5 Usage Statistics and Usability studies

As more and more E-Journals are made available to the users, libraries should ensure that these resources are effectively and efficiently being utilised. Usage reports/statistics has an important role in the E-Journals collection development and management. Libraries should take continuous and consistent efforts for getting the usage reports from publishers. Provisions should be made to extend the usage statistics at regular intervals, complying with internationally accepted standards. Apart from this, libraries can get more reliable usage report at the institution level by implementing usage tracking software/systems. 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. Libraries should also conduct user surveys on regular interval to assess the usage and usability of the E-Journals.

5.7.6 Electronic Resource Management System (ERMS)

As libraries increase their collections of E-Journals and E-resources, finding ways to managing them efficiently, become a major challenge. There are basically two aspects to managing electronic resources: (i) the front-end details of delivering the content to library users, and (ii) managing the business details of back-end staff functions related to acquisition, payment and licensing. An Electronic Resource Management System (ERMS) is a system that supports management of the information and workflows necessary to effectively select, evaluate, acquire, maintain, renew/cancel and provide informed access to E-Resources in accordance with their
business and license terms. In general, an ERMS should support acquisition and management of licensed E-Resources. It should enable the library to track electronic resources from the point of order through licensing and final access. It is expected to provide information about data providers, consortium arrangements, access platform, and the contact information for all content providers. An ERMS should be able to maintain logging problems with resources and providers, and provide customisable e-mail alerting systems. In addition, it should also support retrieval of SUSHI (Standardised Usage Statistics Harvesting Initiative) usage statistics, which is a protocol. Finally ERMS should have a public interface, either separately or integrated into the library’s web OPAC.

There are a number of ERM solutions that prevail in the market and are being used by organisations with varying degrees of satisfaction. There are a few open source solutions and prominent among them include CORAL, CUFTS, ERMes, VERA, FreERMS etc. Prominent commercial solutions include 360 Resource Manager from Serials Solutions, ERM Essentials from EBSCO. ERMS from Total IT Solutions is an ERM solution from India.

The interface frames of two ERMS services (CUFTS and EBSCO’s ERM Essentials) are shown in the following figure. CUFTS is an open source application for managing electronic resources (http://researcher.sfu.ca/cufts), offered by the ‘reSearcher’ integrated software suite, of the Simon Fraser University, Canada.
ERMS act as tool to organise various electronic resources in one location. It is also a solution to the difficult task of procuring and maintaining access to E-Journals and E-Resources. Libraries should consider ERMS as a worthy investment that will facilitate better use and management of E-Journals and take initiatives in implementing ERM solutions for efficient management of E-Journals and E-Resources.

The life cycle of E-Journals collection development and management is outlined in the figure 5.6.
The above diagram provides a detailed overview of the activities associated with the collection development and management of E-Journals. The life cycle mapping helps to outline the problems associated with E-Journals collection development and acts as a checklist for the missing links in the various processes and procedures related to the activity. The activities reflected in the diagram act as reference point for the librarians of the special libraries in Kerala in the E-Journals collection development and management and to implement the recommendations of best practice.

**Figure 5.6 E-Journals Collection Development and Management Lifecycle**