CHAPTER – 6

LIBRARY SERVICE AND E-JOURNALS

In modern time libraries have begin the task of adopting more and more electronic journals and the maintaining digital environment. Libraries are also active in participation of such revolution and actively communicate with their users and aware them with technological changes, their benefits and implications. Documents are important and play an vital role in transforming knowledge and provide contextual framework with other documents in support of collection development activities. The information and technology has been changed and being changed rapidly which has caused a drastic change in teaching, learning and scholarly communication.

It is obvious that change in technology may effect the change in:-

(a) High education curriculum and collaborative learning and developed new pedagogical methods which have been developed by the librarian, faculty and students jointly. All these efforts have changed the models of learning and teaching.

(b) There is a large increase in commercial journals which are in electronic form in publishing field. There are journals available in web based full text also.

(c) Many more printed journals are being converted in the form of electronic journal because of more demand of online journals.

Journals are important source of information libraries maintain a large collection of journals based on their budget. But two points have forced the libraries to consider the demand of the readers, i.e. cost of print journals and the accommodation or spaced engaged for their preservation. Journals are
periodical publications dealing with current information used by special group of readers. There are many categories of journals which are consulted or used. For example:

(i) Specialised journals for specialized readers
(ii) Non-specialised journals for academic and intelligent readers
(iii) Professional journals which are used or read by professional, i.e. Doctors, Engineers, Library Science, Lawyers and Agriculturists and businessmen etc.

All these journals are published at local, regional, national and international levels for their readers. Their periodicity is different, i.e. weekly, fortnightly, monthly, quarterly, half yearly, annually or Bi-annually. All journals contains fulltext articles on various problems of various subjects. They provide update information and readers of every categories of academic, business, science & technology field use them as per their requirements.

Articles are micro thoughts and covers small piece of subjects which are more useful for research purposes or for studies in special fields. These are first printed source. They are published first. They are not repeated in the journals. The articles provides new ideas, new concepts and new informations to gain deeper and specialized knowledge of that field. Journals can be changed at any time with the change of editor, publishers, amalgamation and splitting. But their based theme will be the same as per their objectives and change in the attitude and aptitude of the readers. The change title should be welcomed as it indicate the significant change in the contents. The librarian should review such journals with the help of subject experts and decide its validity for the users.
The popularity and the important of a journal depend on the citations of articles in citation journals or abstracts. Such evaluation help the selector to select or reject the journal for use. The important points are:-

(i) The listing of number of articles a title contained for the year.
(ii) The number of citations used.
(iii) The radio of articles published to article cited.
(iv) The ratio of articles published during the year to citation to those articles.
(v) Back retrieval of articles of old journals.

Reviews:

There are many review journals which publish reviews of the articles and importance of article in the subject. Such reviews help the librarian to decide whether to subscribe such journals. Management information is one service which serial vendor offers regarding their price, its change and subscription. No libraries is capable to subscribe all journals to provide to users. Inter library loan also help in making available many articles to the readers.

6.1 Electronic journal’s services:

Paper based journals are termed in many ways. Similarly, the electronic journals. It has three categories:

(i) Electronic only version of new title.
(ii) Electronic only version of titles converted from print version.
(iii) Both in electronic and print version.
6.1.1 Document Delivery Service:

Reference service has become outdated service in modern electronic environment. The present age is electronic age and all documents, whether available in library or other libraries at any distance may be available to users quickly and properly as per his demand. Inter Library loan services are traditional system which provided service to access material not owned, especially to grey literature. But today libraries are making efforts to provide documents which are unowned and require by customers.

Document Delivery Services may be categorized as:-

(i) Commercial services,
(ii) Specialised services,
(iii) Director from publisher services,
(iv) Aggregate services,
(v) National Library Collection Services,
(vi) Information broker services,
(vii) Free-based services.

Document Delivery Service provide “Just-in-Time” access to very low used material. Staff coordination their activities with DDS. Generally library cutoff low user titles. Library make efforts that all possible documents are provide to user ‘just-in-time’. While evaluating Document Delivery System, many factors are to be considered while selecting a vendor:

(i) Type of access allowed,
(ii) Content of the database,
(iii) User’s options,
(iv) Delivery tools (e-mail),
6.12 Service evaluation:

Use statistics had been in use since long. Print journals had been kept on evaluation in University libraries. The statistics had been used to guide collection decision. Each reshelving of journals and its bound volumes counted as one use. It has been very difficult to count how many articles or journals have been consulted and for how many times. Libraries suggest the readers not to resolve the journals but to leave on table.

With the advent of e-journals user statistics were added to the databases. Publishers usually maintain user statistics and provide to libraries on demand. Libraries make the access as base of statistics. The use statistics for print and e-journals are mixed method deliberately for two reasons:

(i) There have been efforts to know how many articles have been readout of a journal. This information is collected through in-house issue and volume used.
(ii) When print journals are not in use, the better follow user-statistics from those informations collected from publishers in case of e-journals.
(iii) Change in use of titles from print to electronic. There is great increase in electronic version.

6.1.3 Factors influence e-resource services:

There are three factors which are driving force of increasing the use of e-resources by the users:

(v) Customer service.
(i) Desire to provide e-resources for teaching and study. This effort is made by library professional to aware the users about new acquisitions of resources in library.

(ii) Availability of digital version of print resources. The libraries responsibility is to more available more and more digital version of print resources to solve the space problem.

(iii) Inter disciplinary or cross disciplinary work and its implementation. Librarian. Librarian should give a strong drive for acquiring appropriate information resources to serve the new needs of the users.

6.1.4 Library services and financial implications:

There occurs miss understanding among the researches about the funding and the availability of resources. Librarian always try to seek support of the authorities for the purpose. But efforts of librarians vary from libraries to libraries in universities. Perry report highlighted as follows (Perry Report, 2004).

**Top level support: Efforts of librarian**

1. Encouragement of research community to promote library interest to top management.
2. Generally library could not win the top level support.
3. In case of striving top level support, sometimes research community support strongly for the cause.
4. There are many institutions where top level support is secure.
6.2 **Open access services:**

Open access is one the important system to enhance library services and increase the reading habits among the users. Users support library resources by facilitating the deposit of their research products/output into institutional repository. But the efforts are not sufficient or appreciable. This is because of insufficient efforts or services through open access system. There is still need of awareness and development of attitudes towards open access.

There are three points which are to be considered for attention:

(i) Establishment of consortia by creating the resources, buying the resources and resource sharing efforts.

(ii) Preference of journals with mixed subscription and open access contents.

(iii) Providing absolutely free open access services.

There are occasions when librarian do not share researchers desire to fight for increasing the funds for acquiring to facilitate their researchers to deposit their products in institutional repositories.

6.2.1 **More Library visits by users:**

Library is a heart of academic institutions and fundamentally a research centre for faculty, research scholars and students. Students and other users visit library regularly and consult library material available in the library. They also put their demand of resources available in library or other library. They spent their good time in library for browsing reading, and learning within the campus.

There are many factors which are responsible for better library services in university libraries, e.g.
(i) **Convenient location:**

There is common opinion that library should be at convenient location. It should be nearer to teaching departments but not far from hostels. The convenient location will facilitate more visits to the library.

(ii) **Convenient opening hours:**

The opening hours of a library are as important as location. It is more convenient to students and research scholars as they use library at their easy hours. More hours more visits is a slogan for good library.

6.2.2 **Browsing centre for print publications:**

Library is supported to be a browsing place of current issues of print publications. Libraries have created catalogue and union catalogues, which provides all information about library collection. So far electronic resources are concerned OPAC has been proved very useful for accessing information.

6.2.3 **A peaceful place for study:**

An university library is a place where individual study could be quite possible for users of academic community. Some researchers feel that libraries are noisy place, but this is not finally proved as modern libraries are e-libraries and divided in various divisions as to maintain place and study atmosphere. New buildings of universities are also sound proof and especially built keeping in view the noise problem.

6.2.4 **Digital findings aids:**

Libraries websites or portals are very useful and benefited the researchers. There are subject specific portals and subject specific abstracting and indexing databases are useful. There are cross-institutional catalogues are very useful. Users use information search engine like Google or Yahoo etc to locate information.
There have been change in information seeking behavior which could have profound implications for scholarship and material that is digitalized and for which there is easily available and accurate metadata usable by users.

6.2.5 Use of library holdings:

There has been a drastic change in users behavior with respect to journals articles and other literature acquired via databases. They access fulltext articles and databases. General students use only journals which are available in library and acquire other journals through inter lending library system. No library is complete itself so far material is concerned. A user need such material which is available in other libraries. They are few aspects which are paid attention:

(i) Access to fulltext,
(ii) Proper awareness about search engines,
(iii) E-mail use for articles informations,
(iv) Use of ILL,
(v) Subject expert help,
(vi) Online catalogue.

6.2.6 E-journal training:

University libraries experienced that undergraduate students lack in computer literacy and lack of awareness about e-journals and e-resources. They were also found lacking in advanced electronic search skills and evaluation skills as they have little experience and knowledge about journal literature. Libraries conducted orientation programme for computer literacy with the following objectives:

(i) To provide understanding about usefulness of journals,
(ii) To encourage appropriate use of e-journals,

(iii) To introduce e-search techniques.

The users were also aware of the currency and authority of contents and importance of journal articles. They were trained to identify the pieces of information that could be entered into different fields of a database. Students are also aware of accessing the various e-journals resources available through library services. They were also get known of using the resources and provide confidence to engage with software.

The idea of e-journal is not now, but an enthusiasm to replicate the paper based publications process in a new medium. In modern era users want to access information at any time, anywhere. This is made possible by means of web to network computer. But libraries never seriously thought of economic feasibility. Libraries can achieve this goal by establishing central repositories with collaboration of organizational and the publishers.

The main financial problem is with electronic journals in academic libraries particularly in university libraries. Libraries are fully aware with transition trend from print to electronic journals from collecting print abstracting and indexing resources to provide electronic access to them. Though the idea of transit is appreciable and encouraging but several factors are involved in this process, i.e.

(i) The change is rapid which has created many managerial and financial problems. It is known that indexing and abstracting transition took a long period of adopt.

(ii) The print publication is still important to users equivalent to importance of electronic publications.
(iii) All important and reputed electronic journals are becoming common products.

(iv) The archiving of electronic journals is critical and complex as the journals are primary document and recorded permanently.

6.2.7 Aptitude of users towards electronic journals:

Universities have taken up the project of more collection building of electronic journals as quickly as possible to meet the needs of the users, because of many reasons:

(i) Electronic version is more service oriented than print version.

(ii) All efforts are being made by the publishers to produce more and more electronic format during near future.

(iii) Maintenance of print format is costly as it engage more space, while electronic format is economical and can be assessed anywhere and anytime. Electronic journals are being produced with fast speed. Only USA publish more than 6000 e-journals out of which 50% are conversion of print journals. A library hardly acquire 150 important print journals due to their cost effectiveness while within this cost 6000 e-journals can be subscribed.

6.2.8 Service oriented acquisition of e-journals:

The transition process of print to electronic journals is a logical progression. It may be more fruitful if the transition may be service oriented in the sense that only more useful e-journals should be kept on service list of libraries so that they may be proved more advantageous to users and officials both, besides any cost consideration. E-journals are the demand of the modern libraries and their users. Print journals are either not preferred or not accepted in modern electronic environment. The cost ranged from between 65% and 150% of paper price.
6.3 OPAC:

The thing which influence the users about e-journals is maintaining OPAC in integration of other resources. Users access the location and availability of electronic journals through OPAC which is supposed to be a hybrid solution. The current full text services are offered by libraries through OPAC which also includes publishers of e-journals. It is updated regularly. There are many reasons for using the OAPC which are:

(i) It is user friendly with the interface and the search mechanics.
(ii) It is easy to consult.
(iii) It helps in Inter-Library Loan.
(iv) It is single place at which all informations are available.
(v) There is a choice of access as it has record on OPAC and a separate list on the web outside the system.
(vi) The new created web based OPAC is a gateway to information.
(vii) Web based OPAC all links from the received catalogue record not only to a shelfmark location of the journals within the library, but also to the fulltext of the journal in electronic form.
(viii) OPAC has been extended and developed from a simple gateway in to portal.
(ix) It allows the service to be flexible and agile if there is a need to consider creating alternative access method.

On the other hand there are few disadvantages of accessing electronic journals from the OAPC.

(i) It has direct link to journal which user misses out the search stage of e-journal suppliers.
(ii) In some cases it is not possible to link to a login page, so the link between
the e-journal record and full text of that journal is not immediate and
requires further searching via the supplier interface.
(iii) It needs updated regularly, and delay or missing can effect the users service.

6.3.1 Marketing services and e-journals:

Marketing is an important issue in case of e-journals. There are large number
of journals available in market. Every publisher make efforts to sale or allow to
borrow his journals. They keep in touch with libraries for subscribing their
journals. Librarian awareness is equally important such as users awareness about
the journals of their field.

Strong support from University administration:

(i) More number of computer literates.
(ii) Advancement of networking and infrastructure.
(iii) More cost of print journals.
(iv) Poor current print journals.
(v) Budget increase for e-products including e-journals.
(vi) Growing distance education programme.
(vii) Need for ready and quick access of information.

University libraries made many efforts to motivate the users for more use of
electronic journals. Librarian maintained work-sheet for journal related
activities and collected data through personal contact, questionnaire and
observation. Library collected use data through vendors and publishers of
full text titles and compared annually about the current journal usage, re-
shelving time, bound volume use and its repeat, various times of use of e-journal articles. There are assumptions:

### Cost of print journals

- **Subscription**: 80%
- **Building**: 10%
- **Public service**: 5%
- **Stacking**: 5%

### Cost of electronic journals

- **Subscription**: 60%
- **License Management**: 15%
- **Content delivery**: 15%
- **Access cost**: 10%

6.3.3 Usage compared:

Print usage is derived from scanning items as they are re-shelved and also included outside circulation and in-house use. Electronic use on the other hand had
process of vendors service, article views, downloads etc. Because of limited knowledge of user behavior, the use of electronic journals is possible over counted to some also unknown degree. While comparing the usage some questions arises for consideration:

(i) How much the journals are used together. Is it increasing or decreasing?
(ii) What is relationship of browsing and reviewing of articles?
(iii) Which new journals are being used?
(iv) What is the choice of the users about print and e-journals?
(v) What are most heavily used journals?
(vi) It is cost effective to retain the package?

6.3.4 Designing and Building Delivery System:

Every library makes efforts as to how to serve their users and encourage for more use of their electronic journals. Library designs a delivery strategy and apply new tools and technology to implement successfully. No two libraries are identical in their resources, technological infrastructure, staff skill and type of users logical served. There are many ways to provide to access e-journals.

6.3.5 Catalogue and homepage:

In case of new subscribed journals the accessing them through library catalogue and web page, both are the media of information. Different king of users look at different places. Many users use web lists to know about e-journal collection, but to locate a particular articles in a particular journal, catalogue a particular articles in a particular journal. Catalogue provides necessary information. Librarian also ensure that faculty and scholars connect with articles of e-journals by browsing and searching access for full text databases. There are efforts to maintain one master database of OPAC and e-journal webpages to
provide opportunity to users to search as well as browse titles. Many Universities has reached to this target of maintaining a databases that control all access options. This needs hard work.

Catalogue may also be converted or formed as master database to generate web list as well as search options within the catalogue and OPAC display the information about e-journals. But this system face problems of timeliness. Catalogue is time and labour extensive. Many libraries allow users to access e-journals as soon as received and acquired without the process of cataloguing.

There are other ways being adopted by libraries. On receiving the journals libraries immediately updated web ready lists of the titles in their collection of licensed journals, with links to individual journal within each package or full text database. It is possible by obtaining e-journal metadata from publishers and vendors sites and purchasing customer list from third party. But this system is defective as it works a half of the catalogue entry and show doubtful integrity of the catalogue.

For this purpose of master database the library manage or maintain and design some policy to take final decision in the matter.

(i) Whether to link to journal’s home page.
(ii) Whether to link the most current issues with information links to archives and information about journals.
(iii) Whether to link an archive page, which usually links to table of contents of all issues including current issues.
(iv) How much information to provide about the source (publishers or vendors) of the journals.
Whether library provide different kind of access depending on the type of resources.

Whether library want to list all sources for the journal or just the preferred one.

Whether to provide subject access.

6.3.6 Users Centered Access:

Online delivery system has decrease the frequent change in users research needs though information behavior change radically. In each discipline the research theories documented is effected by means of articles in peer-retrieval journals, and current journal delivering articles in different format. These needs remain unchanged because of reasons:

(i) The author of the article needs to submit the review and demonstrate their knowledge.

(ii) Bibliographies are maintained.

(iii) Users need authoritative sources. Even if they are assigned to develop power point presentation or website rather than writing a term paper.

(iv) Students still make efforts to exhaustive literature search for thesis an dissertations.

(v) Users made accuracy and timely information about products related to their subjects.

No library has monopoly for scholarly and qualitative information because of availability all more information on line collection which is pure, large and comprehensive, more of which is free online access for all sources produced commercially. But there is competition because of:

(i) Many groups and individual are busy to produce alternative sources.
(ii) Internet allow access to many more sources which have decreased the need of the libraries.

(iii) Open web sites of many producers provide plenty of factual and authoritative information for students and scholars.

(a) Subject searching:

Majority of the users search articles in their subject, but out of which they choose only few specific or particular articles for their research projects or assignments. These are:-

(i) New topics,
(ii) Old articles,
(iii) Primary sources search,
(iv) Their own articles.

Library catalogue generally provide articles of journals subscribed. Users need many such general or aggregate articles from different sources, preferably databases which contains full text articles. The database identity may be know from catalogue, OPAC. But the website will be more appropriate gateway to your database, which is a challenge in two ways:

(i) Guiding for right database
(ii) To guide users to link to full text of articles from non full text databases.

(b) Browsing:

Browsing is a process and time honoured practice, commonly present electronic journals areas in all libraries. Scientist generally browse:

(i) Core titles in a subject.
(ii) Current issues of specially selected journals
(iii) For background information
(iv) For CAS
Browsing of journals are necessary for their research while print journals are not available. The faculty creates an academic atmosphere. In library print issues are missing, but these articles are available on website for concurrent use and may be browsed. Students generally browse current issues for current information purpose.

There are few popular periodicals providing related articles, they may be browse more broadly and hence no need to browse online version if print version is not available in library. There are libraries subscribe e-journals along with print journals which are more in need. These print journals may not be bound if available online to users.

(c) Web access:

Access through a web is known as web access or through web OPAC. In most cases home page help users connecting catalogue and guide them for e-journals. This is based on web design with standard terminology and structure. There are few principles to be kept in mind:-

(i) Think yourself as user.
(ii) Your experience and specialization may navigate for complex site more easily.
(iii) Primary users should kept in mind while design website.
(iv) Give emphasis to need of users for full text of articles.
(v) Treat catalogue as one of your database.
(vi) Minimize the in-between pages of home page and fulltext.
(vii) Know the information need of users.
6.3.7 Bibliographical database:

Most of the user access e-journal for articles on certain topic. Users are least worried about the journals. Choice is necessary for users who need specialized information’s. There are few databases which are mixed of full text articles and non-full text bibliographical records; it may be default option for full text articles. There are few subjects – specific database for specific search are helpful to users to retrieve online text articles. But users will not limit their options. They will look for inter library loan, if print journals are not available in library. Web list of database also include full text articles.

Catalogue as gateway to e-journals:

<table>
<thead>
<tr>
<th>Arguments in favour</th>
<th>Argument against</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Library continues OPAC as more beneficial.</td>
<td>1. OPAC is not suitable for integrated library system for local library holdings.</td>
</tr>
<tr>
<td>2. Catalogue is integrated directory to library collection and fundamentally providing ideal access to information.</td>
<td>2. Home page linkage is enhanced with features and annotations for use. It is user friendly but it is difficult to include features.</td>
</tr>
<tr>
<td>3. OPAC include e-resources and help users back to the collection and include print and electronic resources simultaneously.</td>
<td>3. Users need quality full text resources and easily but web design should not lead them in the place to start research in catalogue which have more print version</td>
</tr>
</tbody>
</table>
6.4 Consortia service and e-journals:

There was a miracle change in academic libraries in 1990 when every library was facing economic crisis. This was an obstacle in introducing acquisition in digital products. Publishers were also facing problems of creation of digital material. There was a demand of commercial products like full text e-version. The way which was only alternative, was cooperative efforts in the form of consortia. Libraries started to join this effort being more beneficial to users. Consortia is a shared subscription based less of access to e-resources at cheaper rates. It has been proved a source of decreasing budget and increasing library services. It is healthy growth of qualitative products produced by the institutes or publishers on best possible price and terms of agreement. All these reasons of changes, the libraries have started or already entered in forming consortia at all level and in all type with the aim to provide advantages of current global network and more cost effective ways of providing e-resources at faster speed.

Access of e-resources has been considered preferably than the collection building. Now technology has latest effective and quick services on their demand. Web based e-resources is a latest effort in the field of consortia. There has been a sharp decrease in the publishing of educational and research journals due to heavy cost of journals. The research productivity of articles have been reduced to 5-10% in past two decades. Consortia were easy to implement for maximum use of e-resources for which few requisites are as under:

(i) Library should have good infrastructure.
(ii) Users should have computer literacy.
(iii) Library should have internet facilities.
(iv) Internet should integrate library network.
(v) Library should be link with his or other websites to access e-resources to enable the user by right dissemination.

(vi) ICT skills in library professional on internet, e-resources and networking.

(vii) A centrally coordination between library, publishers, vendors and aggregators.

(viii) Availability of highly internet facilities like high bandwidth, IP, Wi-Fi etc.

(ix) Familiarity with e-resources through consortia.

(x) Effective coordination and mutual understanding for successful implementation of the consortia.

(xi) Adequate budget provision for consortia.

However, a consortium is a (i) group of libraries (ii) having a central place to store contents (iii) in centralized manner and (iv) distributed to all associated libraries. All libraries have common interest. One library or a agency perform as coordinator for identification of libraries for each publisher. In common words consortium is a cooperation of more than one power or company for a common cause. It has following specific features:

(i) Mutual objective,

(ii) Common cause,

(iii) Cooperative effort,

(iv) A joint venture of any group of libraries,

(v) At local, regional, national and international basis,

(vi) With formal agreement,

(vii) Through publisher, agency or vendor.

However, consortium is a mode of resource sharing with formal agreement for each participating library for easy access at least cost.
6.4.1 Types of consortia for e-journals:

1. Consortia for single title:
   It is possible to access for print journals on single subscription from different physical location. For example: IITs subscribe print version of chemical abstract and also access online on payment of additional cost.

2. Consortia for group of titles:
   Consortia contain group of titles on one subject or group of subjects on a single subscription or onetime subscription one or two years or so. The main consortia are J-Gate (Informatics India Pvt. Ltd.), Bioone (America Institute of Biological Sciences), EBSCO Database (EBSCO Inf. Service Group), and OCLC (US based consortium of libraries).

6.4.2 Silent features of consortium:

   (i) Homogeneous group or likeminded professionals,
   (ii) Better communication facilities,
   (iii) A mutual understanding between publishers, agents and libraries,
   (iv) Facilitation of cross e-access,
   (v) Marginal cost,
   (vi) Periodical usage statistics periodically,
   (vii) Low cost and increased volumes.

   Major players in publication, marketing and distributing e-journals are: (i) Primary publishers (ii) Aggregators (iii) Vendors (iv) Subscription agents (v) Document Delivery agencies (vi) E-print system management.
6.4.3 Structure of governance for consortia:

There are set goods and benefits of consortium to act as a corporate body as under:

(i) More extension of access for more e-journals,
(ii) Rationalization of budget,
(iii) Continuous subscription is ensured,
(iv) Qualitative resource sharing,
(v) Effective Document Delivery System,
(vi) Payment of products other than R & D,
(vii) Increasing library image,
(viii) Capability of subscription to small libraries,
(ix) Enhancing existing library service,
(x) Boosting professional image,
(xi) Development of technologies towards digital library,
(xii) Training support by agencies,
(xiii) Desktop access by users.

6.4.4 Services offered under consortium programmed:

Library provides various services to its users, but the services provided through consortia are as under:

(i) Developing union catalogue of books, journals, Technical reports and conference proceedings.
(ii) Sharing library system like software, hardware etc.
(iii) Sharing the professional expertise.
(iv) Training programmers for the purpose.
(v) Licensing of e-contents.
(vi) Inter library lending
(vii) Document Delivery Service
(viii) Loading of e-content on common server.
(ix) Physical storage of archiving.

6.4.5 Subscription:

Libraries have no such data of estimating the cost of the information to determine the subscription of consortia. There is also no estimated cost of the investment return or charging/paying for information. All these problems have come in determining the cost of consortia subscription. This has given the liberty to the publishers/vendors to charge the subscription on their own estimation. Publishers claim that the investment of new article hardly makes any profit for a period of 1-2 years. Hence, it is a long generated profit on articles. The other approach “pay per-view”, when user may be asked to pay each time at the time of download or view, from given article or journal. There are few electronic editors offer free access but for promotional period. There are few journals which are supported by research or educational grants or by some appropriate associations and institutions, but it is for short term.

There are two aspects to decide the subscription of articles: (i) Cooperative efforts (ii) Competition among libraries and publishers. Many libraries have not allowed accessing e-journals for various reasons, in developing countries. The reasons or factors are (i) Convenience of users (ii) Infrastructure (iii) Funds. On the other hand the electronic version cost has been put on website from publishers.

There are many factors which effect price:

(i) Quantum of business,
(ii) Number of consortia members,
(iii) Type of institutions,
(iv) Contract period,
(v) Number of campuses,
(vi) Value added service,
(vii) Rights to archives,
(viii) Perpetual access,
(ix) Training facilities,
(x) Multiyear agreement,
(xi) Membership access.

6.4.6 Barriers in consortia in Indian Libraries:

There are many constraints faced for consortia services in Indian libraries. They are:

(i) Lack of knowledge about consortia benefits,
(ii) User’s slow acceptance about e-information,
(iii) Problem of change in mind set about e-information,
(iv) Insufficient funds,
(v) Single window payment,
(vi) Administrative rigidness,
(vii) Critical financial rules,
(viii) Audit rule and regulations,
(ix) Non acceptance of pay per view,
(x) Uncertainly of availability of digital resources,
(xi) Insufficient infrastructure for accessibility,
(xii) Unreliable communication links,
(xiii) Lack of appropriate bibliographic tools,
Lack of skilled human resources,

Professional associations are not strong.

6.4.7 Consortium in India:

There are many important institute and agencies who have setup consortium. Many of them have been sponsored by the government and respective departments. They chowked out a plan and strategy for library cooperation, resource sharing. There have been few departments who have designed and developed their databases of full text journals which are as under:

(1) Forum for resource sharing in astronomy and Astrophysics (FORSA), 1981. Its members are (i) Indian Institute of Astrophysics (I1A), (ii) Inter University Centre of Astronomy and Astrophysics (IUCCA), (iii) National Centre for Radio Astrophysics (NCRA), (iv) Physical Research Laboratory (PRL) (v) Raman Research Institute (RRI) (vi) Tata Institute of Fundamental Research (TIFR) (vii) Nizamiah Observatory (NO) (viii) U.P. State Observatory (UPSO).

(2) UGC INFONET:

It is a unit of University Grant Commission (UGC) provides necessary funds. It is established at INFLIBNET Headquarter which is a Inter University Centre of UGC, situated at Ahmedabad. All Universities of India which are under UGC purview are member of UGC Infonet programme. There are programmes to extend its services to colleges. UGC Infonet is an consortium which was started in January 1, 2004. This programme was initiated with the object of cooperation and resource sharing available to research institutes and the universities for their researchers and teaching programmes. UGC Infonet is an source of providing current, updated and archival periodical publications acquired globally and provided to Indian Universities. This programme aims to cover all fields of learning and research in Arts, humanities,
social science, physics and chemistry science, Life science, computer science, Maths and Stats etc. It provide full text, reviews and abstracting databases. It allowed access to all the collection.

(3) INDEST Consortium: (Indian National Digital Library in Engineering Science and Technology):

It was established by Ministry of Human Resource Development, Government of India in 2003. The consortium emerged as the first and foremost e-resource consortia for academic libraries, Engineering institutes, technical organization, and University libraries. All important national institutes like IMMS, IITs, ISM, SLIET, NERIST, IIIT, IITMs, NERIST, NITIE and SPA are members, which are funded by MHRD ministry for the purpose of access to e-resources. This facility is also provided to all educational institutes. Now it has 165 members institutions. The consortium has an collection of 4500 subscribed journals in addition to many bibliographical databases. It is governed by the license agreement with all important publishers.

The main objective of INDEST consortium are:-

(i) It subscribe electronic journals and other resources at highly discounted rates of subscription at easy terms and conditions.

(ii) It extend its facilities of consortia based subscription to Engineering and technological institutions in addition to its core members.

(iii) It provides training facilities to the users and librarian of member institutions for the maximum use of electronic resources.

(iv) It create more issues and facilities of cooperation and interaction among the member libraries.
(v) It help in production of scientific literature of member institutions and maintain quality of products.

There are more than 70 additional members with support of AICTE and they access resources including IEL, ASCE and ASME journals which are available online.

The consortium has headquarters at IIT, Delhi administered by National steering committee under the chairmanship of Prof. R.S. Sirohi, Director, IIT Delhi. A National Review Committee was also setup under Joint Secretary (Technical Education) for making policies for the development and extending its services coordinating with UGC and AICTE for the promotion of INDEST consortium.

INDEST consortium subscribe full text e-resources containing articles, standards and conference proceedings with bibliographical details. Bibliographical database contains articles references published in journals or chapters of a books. It contains abstract of articles along with link with full texts. The consortium subscribed more than 20 full text databases and 10 bibliographical electronic databases.

INDEST consortium has many advantages:

(i) It allows remote access to its members
(ii) It allows multiple user.
(iii) It is open to access issue is available.
(iv) Access to archival issue is available.
(v) It provides view of full text articles
(vi) Member institutions can create their own digital library.

But on the other side it has few advantages:

(i) It has costly infrastructure
(ii) It is effected by buriocracy.
(iii) It may have lack of peer review of material.

6.5 The impetus to cooperation:

Consortium is joint effort of joining and forming the information unit or piece of information on reduced cost to the users. It is resource sharing mode and a specific platform or consortia activities. Consortium is used by a group of libraries. It also improves the quality of services by increasing access to information. No library can house all resources but it can join hands with other libraries to access a large number of resources.

Consortium is an association and partnership between the librarians and publishers through cooperative efforts, coordination and collaboration among them. ALA created a committee on cooperation in indexing and cataloguing in college libraries in 1876 and started a cooperation Programme in 1890 to shared cataloguing and inter-library loan initiatives. In 1900 library of congress subject headings appeared. By the beginning of 20th century inter library lending programme of cooperation began. Cooperative cataloguing started in 1932. During Post-World War higher education was expanded and emerged new cooperative efforts. Many programmes were started like Universal serial, Book exchange programme and cooperative Acquisitions.

Computers were introduced in libraries and used for bibliographical process and searching database in 1960. In 1970 US Education Department developed academic consortia for library operations and in 1970 it adopted network model utilizing computer networks. Another effort was also made in this period that development of Mega consortia for bibliographical utility, i.e. Ohio College
Library Centre (OCLC) and Research Library Group (RLG) and Washington library Network (WLN).

During 1980 there was reduction of funding in American libraries which gave stress to libraries to develop cooperation venture to provide information to users and adoption of bibliographical databases. This was the starting of consortium. It was a result of technology and a strategic partnership.

6.5.1 OHIO LINK:

It is a shared information consortia network serving more than 100 public and private higher education institutions. It is funded by Ohio State Board. It has centralized catalogue and individual library based system using the same hardware and software and library to library delivery and centrally supported databases and full text resources. It also provides cooperative lending services. It provides inter library loan services. Its aim is not profit but to raise the standard of information access. It provides access to more than 100 research databases, over 3000 e-journals and a digital media center with collection of Elsevier Science, Science direct, On Site, Academic Press, Project MUST, Springer Verlag, and American Physical Society. It has downloaded more than 5 lakhs articles.

6.5.2 E-JOURNAL PROBLEMS AND CONSORTIUM:

Consortia are a beneficial platform to access digital information, resource sharing shared virtual catalogue and automation. But until unless the consortia is sincerely developed, it will serve within limits and hammer the more expectations. Though libraries have set aside a separate budget for consortia, it needs a continuous increase with the increase of the cost of journals. Digital collection is commercial in nature representing core material. The databases purchased by consortia have no consistency in depth, breadth or extent of full text coverage that
titles provide. Databases are reviewed time to time and odd journals are discarded and new journals are added to meet the needs of the users.

There are few consortia databases like EBSCO, IAC (Information Access Company) and UMI provide material through Archival coverage. It is a common belief of users that e-journals can be access at any time and at any place. This Universal accessibility of information provided by publishers through password. It allow authenticity which is shifted to vendor.

There has been competition among vendors, aggregators and publishers. Technology has become spread, new journals are established which also adds to new competitors. License permit the fair use of all type of information whether commercial, instructional or scientific, with the provision of copyright practices. No consortium has become old tool, there have been emerged more technologies in digital world.