CHAPTER - 2

LITERATURE REVIEW

2.1 LITERATURE REVIEWED

2.2 SUMMARY OF LITERATURE REVIEW
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REVIEW OF LITERATURE

The first input to any research is a detailed literature search on the topic concerned revealing the work already done, current trends and future research. Literature search on various aspects of library consortia was carried using various bibliographic and full text databases including Library and Information Science Abstracts, J-Gate, Science Direct, online sites of IEEE, Springer, Black Well, Francis and Taylor, etc., a number Conference Volumes and the Internet. Few references on historical aspects of consortia covering ILL, resource sharing and networking of libraries are also reviewed. For the sake of convenience the review is arranged under various headings keeping in mind flow of information from general to specific aspects of consortia as given below. Under each heading review is arranged chronologically and by author name at next level. A brief note on salient findings based on literature review is provided at the end of review. References have been listed at the end of this chapter.

2.1 LITERATURE REVIEWED

2.1.1 Introduction

Ison (1994) suggested to introduce a patron initiated, or self service, interlibrary loan system, which allows reserves to be made at public access terminals for items anywhere in the system. It was found that Interlibrary transactions among the participating libraries increased by more than 500 per cent in the first four months of operation. Examines the implications of the resulting shifts in borrowing and lending patterns for resource sharing and services by the cooperative's members.
Mason (1994) highlighted the Kodak Library Image Consortium (KLICC) at Cornell University which is digitizing collections of bird paintings, architectural documents, and images from Cornell's history.

Bixler (1995) describes in context of cooperative scheme for database purchases run by the Alliance for Higher Education consortium comprising 21 academic institutions and 2 public library systems in northeastern Texas and mentions that consortium has eliminated a segment of additional costs in staffing, space, maintenance and management.

Miller (1996) highlights that Consortia exist to share resources, people/expertise, databases, collection development, ILL plans, storage and online computer systems. Also indicated the different types of consortia such as electronic information and licensing fees, negotiating, WAN access to CD-ROMs, licensing CD-ROMs, linking citation databases and full text resources.

Domer (2000) used recent literature to demonstrate how the arrival of digital information is blurring the boundaries between the various players in the information chain and "how this is affecting the role of the collection manager in libraries and information services".

Atkinson (1996, 1999) has clearly delineated the key aspects of this evolution from an institutional perspective but without specific reference to the functions and roles of collection managers.

Oder (2000) and Hiremath (2001) have also focused on cooperative collection development in the form of consortia activities arising from opportunities based on digital information. Dorner (2004) opines that changing nature of the meaning of collection development also is evident in the increasing importance placed by collection managers on consortia and the increasing amount of time being spent on consortia work.
The Art Museum Image Consortium (AMICO) and the Research Libraries Group (RLG)(2001) points out that the Consortium is a growing, non profit organization currently dedicated for enabling educational access to museum multimedia.

Brunvand et al (2001), describes that collaborative efforts increase information resource access statewide to meet the needs of distance learners and take advantage of changing technologies.

Giordano (2001) pointed out the advantages of consortia stating that Gaining access to more resources; improving a bargaining position with suppliers when acquiring e-licences; sharing the costs of new electronic services and publishing products. Suggested consortium models like the loosely-knit federation; centrally founded statewide consortia; the multi-type network; and the tightly-knit consortium.

Prior (2001) points out that intermediaries of various sorts have been key players in helping libraries in access to and the acquisition of, periodicals, subscription agents have been prominent, with a strong tradition in the print environment. They have developed additional services for libraries that focus on using automation to meet this objective, starting with periodicals management software and links to their databases in the 1980s, through to electronic periodicals services today. Intermediaries have a wider role in providing services in the area of electronic periodicals, to publishers as well as libraries. Also point out that a key development is the growth of linking, including reference linking between publishers and the linking activities of intermediaries. The library consortia in various countries has had an impact on library purchasing methods and hence on the role and services of subscription agents.

Tonta (2001) writes that "Information" is a national resource and the lifeblood of national development. It is as crucial for organizations,
corporations and nations to gain competitive advantage as it is important to get access to current, up-to-the-minute information to survive in the global market. Therefore, production, acquisition, organization, retrieval and use of information should be seen as a national issue.

Webb (2001) and Marcum (2003) have examined the impact of digital information on collection management on individual and on how collection management practices and roles should be changing as a result of digital information.

Ball (2002) identifies the functions in the information supply chain: creation, publication, aggregation, access and use. To a greater or lesser degree, each of the activities, or links, adds value to the information, until it is used and the value realized.

Pandian et al (2002) mention that the main factors that affect consortia efforts are more human and attitudinal than technological or economical. The information environment today is very much conducive enough to tackle the problems faced earlier. With the advent of the Internet and World Wide Web, it is possible to provide instantaneous access to the sources available not only within the organization, but other institutions that participate in the consortia programme.

Bhattacharya (2004) while reporting about the digital library initiatives in India, gives an account of e-resources available in different Indian libraries individually and also those made available through consortia like INDEST, FORSA, CSIR INFLIBNET, etc.

Gulati (2004) discusses the status of information and communication technologies usage in Indian libraries with special reference to special libraries and the efforts made by various institutions to
propagate e-information products and services. She gives an account of few Indian consortia initiatives including INDEST, CSIR and UGC-INFONET.

Pathak (2004) observes that library consortia in developing countries like India expect further subsidies for journal subscriptions, free online access with print subscriptions, electronic access at lower cost than print, and alternative business models. Enhanced communication and interaction, special short-term training programs, and increased funding for librarians from developing countries to attend international conferences are also expected. International library associations can also extend their help with these. The success of consortia very much depends on the members of consortia. The published literature and the discussion above give every indication that libraries will continue to form consortia in India. He also gives brief account of few major consortia initiatives including UGC-Infonet, FORSA, INDEST and CSIR Consortia.

2.1.2 Evolution/History of Consortia

Consortia have roots from traditional librarianship in various concepts like ILL, Co-operative resource development, resource sharing, Union Catalogue, including library automation. Consortia gained good momentum due to real time and interactive access to information shared by various libraries and resources. The consortia move is advantageous both to libraries and publishers in achieving their respective goal. Consortia development have been both democratic and autocratic, lightly federated and loosely federated depending on the social and political consortia of the country.

Patrick (1972) mentions that the first listing of these consortia, The Directory of Academic Library Consortia, was a result of this research. The other significant product of this study was a book by Ruth J. Patrick,
Guidelines for Library Cooperation: Development of Academic Library Consortia.

Patrick (1972) notes, "Interlibrary cooperation is not a new phenomenon. Awareness of the vast and growing world literature, in relation to the holdings and resources of any single library, has fostered among librarians as acute appreciation of the interdependence of most of the nation's libraries and of the requirement for some level of cooperation. Academic libraries have proposed cooperative ventures long before the other parts of their institutions expressed any interest in such ventures, and interlibrary cooperative arrangements have often been one of the more productive areas of inter institutional agreements."

Davidson (1993) recognized the need for library services for the setting up of a cooperative consortium based on the libraries.

Riggs (1993) highlighted the early movement as early as 1993 for consortia of National Research and Education Network/National Information Infrastructure, use of the Internet for improving access to public information, particularly federal information; the relationship between democracy; information and technology in the 90s and beyond and network information policy issues and initiatives. Also highlighted the formation of the Pacific neighborhood consortium; Internet Talk Radio; InterNIC; Library of Congress special project available on the Internet; national library for the environment: taking the concept of a virtual library to a virtual reality; preservation and access using photo CD; large scale imaging and text retrieval project; project Open Book: microfilm to digital imagery at Yale university; right for electronic access to delivery of information project: strategic pursuit of collective intelligence; Internet presentations; advertising of the Internet; transformation of scholarly communication; architectures and standards; legislation, codes, policies
and practices; access to public information and management and professional development.

McClanahan (1994) suggested to set up a statewide database of school library holdings and to provide access to full text periodical information and implemented considering public school libraries to join local, regional, and national consortia and networks composed of both academic and public libraries.

Boisse (1995) writes that cooperation occurs when two or more libraries work together to provide more developed services to their respective users.

Clark (1995) observed that consortium in creating entries include video recordings, 16mm films, slides, sound recordings, computer software, and even some slide sets, kits, games and realia.

Brusegan (1996) highlighted the example of consortium achievement i.e., VENVIVA project, supported by a consortium of Italian, Austrian and Greek private companies and cultural institutes, aims to make available to researchers, via the Internet, some of the major cartography collections held in the historical archives and libraries of the 3 countries involved.

Martin (1996) suggest that libraries should also consider coordination of serials collection development and greater consortial or shared access to databases.

Allen and Hirshon (1998) informs that at the first informal meeting (Coalition of Library Consortia) of leaders of some individual consortia, a loosely structured group was named as “Consortium of Consortia”. The name was soon changed to more accurately reflect its membership and became the International Coalition of Library Consortia (ICOLC). The
informal discussion groups were replaced with twice-a-year meetings where attendance continues to grow.

Kopp (1998) observes that although the exact date for the first use of the term "library consortium" is not clear, it can be said that the concept of "consortium" as "association or partnership" has long been a tenet of librarianship, generally encompassed in the terms "cooperation," "coordination," and "collaboration". Melvil Dewey wrote about "library co-operation", in an issue of the Library Journal that appeared in 1886, and a year earlier E. Mac presented views on "Co-operation versus competition" in the same publication.

Kopp (1998) mentions that as early as the 1880s, Library Journal published articles on library cooperation which suggested that libraries work together to share their collections. Interest in library cooperation remained high thereafter. The American Library Association even had the Cooperation Committee, which published reports in the 1880s. American library consortia continued to develop, although very little published information was available about them as a whole. To obtain a clearer picture of academic library consortia, in 1972 the United States Office of Education commissioned a nation-wide study of those consortia, which were predominately academic.


Stevens (1998) notes that "consortia have become significant players in the library field—particularly between libraries and publishers of electronic resources."
Darch (1999) et al give an account of academic library consortia in South Africa. In this descriptive text, they have attempted to outline, for a mainly North American audience, the specifics which distinguish the developing consortia in a newly democratic and newly globalised South Africa from those in other more economically advantaged parts of the world. It remains to be seen whether the center will in fact hold. They describe the all-important social and political background in which their institutions must operate, moving on to an analysis of the impulse to cooperate and the obstacles that have emerged to stifle that impulse.

Hirson (1999) opined that there are many ways that a library consortium can play an invaluable role in developing and helping libraries to implement new customer service programs. In addition to those ideas mentioned above, there are at least two ways in which library consortia can help. The first is to support library change management programs related to customer service improvement, and the second is to help improve the services themselves.

Sanville (1999) comments that current practices of journal acquisition are grounded in the legacy of a print-bound world in which each library is an island of access for its own patrons. But with electronic desktop delivery of information, the increased ease of access allows far greater information use than previously possible. Libraries and consortia must seek to enable this desirable outcome by adopting purchase models that provide for expanded journal access. As the evolution to broad scale electronic access continues, libraries and consortia must take advantage of the opportunities illustrated by the EJC that fashion a sustainable economic model of information purchase which maximizes information use. Consortia have become of much greater importance for collection managers confirming
Heller (2000) opines that it is possible to implement a cooperative strategy, every organization joining a consortium should have a clearly articulated business theory which sums up the assumptions that constitute the core values of the organization: Large consortia concerned primarily with computerized large-scale technical processing; Small consortia concerned with user services and everyday problems; Limited-purpose consortia cooperating with respect to limited special subject areas; and Limited-purpose consortia concerned primarily with interlibrary loan or reference network operations. These four types still form the basis of many current American library consortia, although through expanded needs or combined purposes, some new types have evolved. In fact, the evolution of the forms of library cooperation is a very active component in libraries today.

Hurtt (2000) discuss the advantages of consortia to publishers including the ability to simplify the sales process, to help publishers increase their market penetration and communication with more libraries, and increase the speed of sales. Oder's (2000) perspective that "consortia have hit critical mass.

Bostick (2001) while tracing the history of academic library consortia states that the idea of libraries cooperating with each other is very strong in the United States, and the concept of cooperation is not new. In the early 1900s the Library of Congress began a system in which catalog cards were distributed to participating libraries. This was followed by the publication of the Library of Congress Subject Headings, which was the first nation-wide subject classification system. The Library of Congress also began to provide cataloging for participating libraries. The cataloging project was an early form of large-scale library cooperation. It was in the 1960s and 1970s that library consortia began to flourish in the United States. The basic idea of resource sharing was a strong feature. Resource
sharing enabled students at one university to use the collections at another. In many cases lending privileges were included in the agreements. In some consortia, lending practices to other member libraries were quite restrictive, often including only faculty and graduate students, and in some cases even fewer were eligible to borrow materials. The concept of multi-type cooperation became common at this time. Multi-type cooperation meant that libraries of different types bonded together to form a cooperative entity, usually for a very specific purpose, such as book purchasing or cataloging. In this period, the focus became more on access to materials, rather than ownership.

CLEVNET Library Consortium (2001) came out with an option that user can watch and participate as librarians navigate the Internet to find information and the latter can convert print documents into digital format and send these to the user via electronic mail.

Gobel (2001) found that Book-processing is rationalized and ARKLink Library Consortium has been developing a union catalogue, document supply and digitization.

Rinehart (2001) mentioned that distributed information about art collections on a previously unknown scale, museums, arts organizations, libraries and archives are Herculean task and need developing standards and implementing large-scale union databases which integrate and disseminate information. It was mentioned that consortia provides opportunity for participating institutions and considers the possibility of decentralization as a solution to sharing art and cultural content on a truly vast scale.

Ball (2002) states that there is no magic formula to determine which level of procurement or action is the optimum. Several national initiatives, bringing far-reaching and quite immediate dividends, are suggested by an analysis of the results of this survey: A national forum of consortia for
deliberation and decision-making; A national strategy for procurement (uniting print and electronic); the development of a single standard national license for e-resources for public libraries; and the specification and procurement of a single standard interface and system of authentication for public library users.

Giordano (2002) through his analysis of consortia from the viewpoints of scope and geographical dimension, policy and programme, governance, infrastructure and financing, noticed notable differences between countries in terms of both level of development and manner of implementation. Various other factors were identified for the success and failure of consortia like political and managerial nature, administrative decentralization, national technological programs, financing, organizational structure and the legal status of the consortium, all of these play a decisive role. The study identified Three principal consortia models which seem to be establishing themselves: a centralized model (principally in the Nordic countries), a decentralized model (currently the most widespread) and a regional model (in some countries with decentralized political systems).

Laite (2002) opined that forming a local consortium, given the perceived need to address the information requirements of those beyond the library building and in the local community.

Nfila and Darko-Ampem (2002) have reviewed the developments in academic library consortia and say that current trend is one of sharing integrated library systems and computer databases, collection development, purchasing of electronic journals, and staff development. What has been achieved is the provision of resources to patrons that did not have them before the consortia, as well as increased levels of services and convenience of patrons. By libraries bonding together, cost savings come through reduced cost per unit as the group of libraries in the consortium shares the expenditure.
Weech (2002) reported that early 1980s resource sharing and in the mid-1990s the financial and technical developments led to the dissolving of the consortium and the realignment of some of its major academic library members with other academic libraries outside the original group. Thus what was once considered a model for the future of multi-type library consortia became a dysfunctional and non-operative organisation.

The China Academic Library & Information System (CALIS) is intended to fulfill the co-building, co-recognizing, and co-sharing of information resources, deeply developing the social and economic benefits and serving Chinese higher education (Aiguo 2003).

Stumpf (2003) state that the consortium should be able to save money with a centralized processing unit. However, there are other factors involved that may influence the implementation of such a process. At the regional level consideration should be given to replicating the models and utilising existing strengths and experience at the national level. The HE regional consortia illustrate how national strategy and action can be developed and carried on, by means of a decision-making forum and protocols, without instituting a national body. The problem of remoteness from grass-roots opinion and requirements is also largely avoided. National-level procurements are led by individual consortia on behalf of the others.

O'Connor (2004) highlighted the importance of consortia important including: Extremely widely used but little understood; Growing in number, nonetheless; Issues are very similar across different sectors; and Desire to learn from each other

2.1.3 Governance Structure

Over the years different models of consortia have been evolved based on subjects, institutions under the one apex organization or geographical
area etc. Consortia world over follow different governance structure. However there have been some efforts to bring consensus to evolve different governance structures suitable for different set ups and countries. ICOLC has been doing remarkable work in this direction.

Drewes and Guzi (2001) stresses that the consortium model is to be recommended for both paper and electronic archives.

Kohl (2001) opined that purchasing model along with the cost effective nature of e-journals makes the finances viable. Exploits implications for the future of collection development.

Rinehart (2001) visualize future of large-scale consortium projects and whether they will be able to increase in size to include hundreds of thousands of institutions using current models, considers the possibility of decentralization as a solution to sharing art and cultural content on a truly vast scale.

Rusch-Feja (2002) suggested four types of consortial models in Germany: state determined regional consortia for libraries in higher educational institutions; regional multitype consortia; institutional consortia; and supra regional multitype institutional research library consortia. Recommended that advocacy role of the Information Communication Commission of the Joint Learned Societies, the German Research Foundation, and the efforts of the Federal Ministry is important.

Katsirikou (2003) discusses the functional and organizational models of consortia and says that Consortia, consisting of libraries of various strengths, power, age, collection, staff experience and specialisation, can operate using the concepts of KM in order to enhance their effectiveness and efficiency, as well as to share the expertise developed in the services of member libraries.
2.1.4 Management Factors

Developing consortia and its team based on scientific consents is very difficult. The process should be bound by set of rules, regulation and MOU. Consortia is creating new paradigm for collection development for scholarly publishing and purchasing power of libraries. Effective management is essential for any venture. A well defined management structure with clear cut responsibilities for different layers leads for the success of consortia. Some of the responsibilities include developing guidelines, terms and conditions applicable to participating libraries, resources procurement process, access, licensing etc.

Dillon (2000) visualize that future role of the e-book in academic publishing looks promising, although among trade publishers the future appears less certain.

Brown (2001) highlights disillusionment among the end users and suggests that there is a new role for intermediaries - that of providing effective navigation to bring those who are not part of the subscription and consortia arrangements into the information system.

Cox (2001) predicted that consortia create publishing conglomerates and the emergence changing the economic model of scholarly publishing and the process of individual collection management. He also predicted that next decade will create environment of alliances between publishers and other information providers, the continuing importance of quality control and peer review, and the needs of authors and readers.

Davies (2001) Suggested to look at library related areas, such as journal archiving, collection development policies, development of a common Z39.50 catalogue interface, grey literature, electronic journals and consortia purchasing.
Schmitt and Bollettino (2001) suggested the principles permitted the consortium to achieve its objectives for access to both print and electronic journal. Tonta (2001) lists issues and problems, in no particular order, that Turkish university libraries should tackle in order to streamline their cooperative and consortial efforts: Culture of working together to carry out cooperative projects; Commitment to cooperation; Mutual understanding; Consensus building; Patience; Skills in planning, organization and administration; Knowledge; Human resources; Monetary resources; and Common intelligence.

Atherton (2002) emphasizes the need for improving access to community information leading for support for lifelong learning, active citizenship and digital literacy.

Ball (2002) opines that consortia may adopt models depending upon various criteria such as functional focus, resources, etc. One can become member of more than one consortia depending upon requirement. Some of the criteria include: national approach, content, delivery, licensing issues, etc.

Aiguo (2003) talks about problems concerned to retrieval of information. With the ever increasing number of electronic resources being acquired by tertiary institutes in China, users might find it more and more difficult to retrieve information they need. Since each vendor has a unique search platform providing a different mix of databases, end-users must become familiar with the content of databases or the operation of each platform. Much time could be wasted in searching for information on different platforms. The lack of integration and coordination in information resources within and among universities hamper information seeking activities in particular research activities. To solve these problems, libraries should establish a navigation system which arranges the electronic serials.
by name in alphabetical order for full-text databases. In addition, the SFX linking technology or a CALIS SFX server can be adopted.

Ching (2003) despite some success achieved by Consortium on Core Electronic Resources in Taiwan (CONCERT) in getting e-resources for its academic members still some issues such as a satisfactory model for the operation of the consortium, well-planned collaborative collection development, appropriate training for librarians, and advocacy have not been properly addressed.

Foster et al (2003) opine that All parties in the information chain—scholars, publishers, aggregators, agents and librarians—are re-evaluating their roles in the light of new electronic delivery developments.

ALIA Forum (2004) lists out the consortia issues: Licenses; Diversity of clauses, definitions and terminology; Authentication is a big issue - important from vendor and end user/library's point of view - technical issues; Entitlement, remote access; One size fits all licenses, rather than relevant to the sector or region; Definition of 'site' - bricks and mortar v. users and potential usage; and Copyright subject to law of whose country?

2.1.5 Technology Infrastructure

E-journals access and other IT based services are IT infrastructure intensive. While consortia facilitate access to more information with more number of e-journals and other kind of resources, to make the efforts cost effective minimum infrastructure including PCs at different locations, campus wide LAN, Internet with good bandwidth, a unified gateway for cross access for titles.

Radak (1994) suggested to use of voluntary industry standards, the standards setting process, the fact that standards have not kept pace with
changes in IT, problems with Open Systems Interconnection and the Internet Protocol Suite, recommendations of the Panel on Federal Internet working Requirements, and the work of industry consortia. Also suggested for the technical, organizational and policy issues affecting the development of standards for national information.

Wood (1995) recommends that the creation of special interlibrary loan software should allow searching of the collections of other consortia or libraries, the selection of databases, training and evaluation.

Budler (1996) shared experience that technology and its impact of service for end users led the libraries and created interest in a consortium purchase of a base package of databases.

Dolan (1996) according to EARL there are many provision for collaborative framework, range of network services, facilities to enhance the information and resource sharing services of public libraries using Internet in improving collaboration by networking services between public libraries and other libraries, provide access to information and resources at local, regional, national and international level and assist the public or end users to gain access to and knowledge of the information services available on the networks. Focuses on 3 core EARL services: EARL Connect; EARL Information; and EARL Development.

Hsieh-Yee(1996) opined that equal access to information technology does not necessarily lead to equal use. Wagner (1996) the consortia possibility and the success. Statewide library automation, connectivity, and resource access initiatives.

Frasciello and Richardson (1999) opine that library consortia require automation systems that adequately address the following questions: Can the system support centralized and decentralized server configurations?
Does the software's architecture accommodate changing requirements? Does the system provide seamless behavior? Contends that the evolution of distributed enterprise computing technology has brought the library automation industry to a new realization that automation systems engineered with an n-tiered client/server architecture will best meet the needs of library consortia. Standards-based distributed processing is the key to the n-tier client/server paradigm. The system should have the capability to test a vendor's claim to scalable distributed processing by asking three questions: Is the software dependent on the type of data being used? Does the software support logical and physical separation (distribution)? Does the software require a systems-shut down to perform database or application updates?

Campbell (2001) traces the history of the ebook and looks at current and future developments. In 1998, the first ebook readers, Softbook and Rocket eBook, appeared. These, however, were expensive and sometimes hard to read, and did not really take off. Recent developments include ebook software based on Adobe's PDF file format, and, in late 2000, Microsoft's version of ebook software, the Microsoft Reader, which features a much-improved font technology. NetLibrary, Questia and Ebrary are now competing to market access to copyrighted digital texts. However, problems related to standards and intellectual property are holding back development, although an industry consortium is working to try to resolve them. Predicts that there will be a steady improvement in hardware devices and possibly the achievement of digital, networked convergence enabling the development of hand-held wireless web devices holding a library's worth of information.

Needleman (2001) describes in context, Resource Description Framework (RDF), technology developed by the World Wide Web
Consortium that enables encoding, exchange, and reuse of structured metadata.

Ball (2002) based on the survey responses lists following technical issues concerned to accessing the e-resources: In services not providing IP-address authentication, staff have to log users on; Use of proxy servers may cause problems - the service provider may be concerned about unauthorised access and concurrent usage; Frequent changes of IP-addresses, with no notification by corporate IT department; Inability to restrict access to only library PCs (once through the firewall, the whole authority has access; the library bears the cost); Networking; Access problems due to filtering software; Long-standing access problems associated with IP addresses are reported, but seem to have been resolved by one authority; and Lack of support from commercial providers (of networks and resources).

Aiguo (2003) describes four models of access to electronic resources in China. The first is setting up a mirror site and providing local access service. For example, CSA, Ei Village, INSPEC and SDOS have a mirror site in the Library of Tsinghua University. The advantages of this model are: Reduced costs associated with international network communication fees; Increased access speed; No time lag; Having good technical strength to uphold a mirror site; and Ease of combining mirror site maintenance with an information advisory service.

Ching (2003) based on the survey conducted feels that the majority of collection managers are dealing with physical access and technology issues related to digital resources, and the vast majority are liaising with computing staff to resolve them rather than doing this work on their own.

Cox and Onuf. (2003) put forth the proposition that much of the current digital anxiety besetting our profession is misplaced; rather than
fall prey to anxiety over the constant need for adaptation to emerging technologies, archivists should concern themselves more with the critical skills of description, arrangement, and interpretation, the traditional archival skills that are in danger of eroding in the new digital world.

2.1.6 Information Retrieval

The scattered resources and proprietary search engine of each and every resource create problem for users to access literature across distributed (electronically) resources. Hence there is need for single interface.

Villiers (1995) found that consortium can handle online public access catalogue, acquisitions, circulation, allocation, interlibrary loans, serials modules and the authority files including creation of reference databases.

Wilson and A. Caputo (1995) in a Consortia project with DIALOG has found that future access to traditional online resources and the training requirements for such resources in an undergraduate environment present unique challenges. Bolman (1996) view that journal in the scientific enterprise changes the scientific information system that have to do only with the dissemination function are either doomed to failure or will result in fundamentally changing, or even damaging.

Bolt (1996) highlights the statewide library automation, connectivity, and resource access initiatives. Mendelsohn (1996) in a survey by UKOLN (the UK Office for Library and Information Networking), found that cash is the main limiting factor in public library exploration of Internet facilities, and success of the EARL consortium (Electronic Access to Resources in Libraries) to boost the developments.
Ormes (1996) highlights consortium of UK public libraries to provide support, advice and help in the development of Internet based services and discovered the range and extent of material which members could provide about themselves and would wish to be made available on the Internet. Also covered the non-library information access like local and council information and extent to which the libraries are already networked.

Snyder (1996) opined that standards applied to most mass retrospective conversion and cataloguing projects are not suitable for older materials, and the products of the hand press, printing before 1830, hence the necessity of compilers of rules and the designers of formats can bring the systems in use into greater consistency and conformity.

Estivill and Abadal (2000) described Library Consortium to focus on (1) creating databases of web resources; and (2) integrating these into the library catalogue. Examples are given of national and international subject gateways. Compared in terms of selection, description, indexing and classification, information retrieval, and maintenance, in the context of trends towards co-operation and interoperability.

Davies (2001) states that consortia should include library related areas, such as journal archiving, collection development policies, development of a common Z39.50 catalogue interface, grey literature, electronic journals and consortia purchasing.

Holder and M. Osanai (2001) found that downloading from e-journals is increasing but in-library use is decreasing. Most use is on Fridays and Saturdays. In rating library services, academic staff place e-journals in third place after print journals and books.

Preece (2001) suggest that library consortia take part in many activities, including the provision of union catalogues and virtual online
catalogues and to optimize access and delivery of materials to users: transparent access to the most relevant information through appropriate local and remote library catalogues, citation databases, and electronic resources; transfer bibliographic citations or details about non-bibliographic items into electronic requests or orders; pass requests or orders through the library online system to determine the local availability of the item; direct the request or order to one of a range of suppliers including document delivery suppliers, or a local or remote library interlibrary loan/document delivery department; communicate electronically with the chosen supplier; and receive the print materials, multimedia, data, or full text/full image copy of non-returnable documents directly at their desk or workstation.

Ball (2002) identifies the major factor differentiating electronic from printed information is the shift from product to service. With printed information, much labour and cost are tied up in producing, distributing, storing and handling a physical product: books, serials, even CD-ROMs. With online electronic information, libraries and other intermediaries generally provide access to information held in a remote location, a service not a product.

Ball (2002) opines that while there are many approaches to gather statistical information on usage, still a general impression that little such information is available. Some use only observation ("queues at peak times") and service providers' statistics. Others count bookings of machines and hits on the proxy server. Service providers' statistics are used at renewal time; subscriptions have been cancelled because of low take-up. Most resources are judged to be well used, but there seems little firm statistical or comparative basis for this judgment. Low take-up is blamed by one authority on insufficient marketing. A number of authorities cite system-based improvements in prospect for the collection of statistics.
Eales and Wise (2002) suggests for developing protocols to facilitate interoperability of electronic resources and to have a strategy for providing coherent discovery, access and use for academics and students with collaborative initiatives linking frameworks, access systems and portals.

Quint (2002) suggested to facilitate the extension of service through the provision of tested, effective and integrated portal level software and allow library to supply a community of users with a single point of web access that can reach a full array of diverse, high quality information resources and deliver material directly to the user's desktop.

Long (2003) says that advantages libraries gain from the medium are many, but companies such as NetLibrary and Ebrary have shown that the industry still needs to establish a definitive means of making their products successfully usable in the library environment. Library networks and consortia.

Rowse (2003) observed that increasingly sophisticated search and navigation tools enable users to navigate from a variety of primary, secondary and tertiary resources directly to an article - regardless of where the article is hosted or by which vendor it is sold.

2.1.7 E-Resource Mobilization

E-environment has given a new virtual collection, easily searchable and accessible, as a collective bargain for institutions through consortia. Turner (1999) states that national site licenses appear to bring many advantages to a complex field. As currently conceived in the UK (NESLI) the National Site License could have some unintended side-effects to the detriment of libraries, publishers and agents. The problem stems from combining the three functions of the consortium (negotiation, access and
purchasing) in a single body, the Managing Agent. This can create a monopolistic situation for the future, which may be undesirable from a number of standpoints. Some solutions are suggested on how to achieve the benefits of National Site Licenses without these drawbacks.

Ball (2002) identifies the following elements of information procurement cycle: identifying the need; preparing the specification; finding the supplier; awarding the contract; and measuring and monitoring suppliers’ performance. Further he lists the following selection criteria for e-resources: General Requirements; Technical Requirements; Support Requirements; and Price/Contract Requirements. He also quotes main criteria cited by another authority – price/value for money; speed and reliability of database; quality-assured content from authoritative sources; and suitability to type of enquiries received in our libraries.

Liu and Cox (2002) states that e-journal publishers and aggregators are using various standards to create e-journal usage reports. This situation has created many problems for libraries that use those reports. For e-journal collection development, it is essential for libraries to know exactly who is using their e-journals, how often their e-journals are being used, and how their e-journals are being accessed.

Bittner (2004) The existing business model for consortia world-wide is a collection model: Wide coverage; Collection prices heavily discounted against total per title prices; Existing subscriptions must be maintained; Priced by FTE. This author also suggests alternative business models: Base spend + percentage top-up fee for access to the complete collection: Wide breadth and depth of content; Print cancelled or purchased at deeply discounted rates (DDP); Consortia-wide, i.e., all members must participate; Usage based model; Subject collections; Pay-per-view; Open Access
2.1.8 Pricing and Economics

E-Journal publishers have both to penetrate their new journals to new and existing customer market without loosing break even revenue. Libraries are gaining more due to sharing both resources and infrastructure. The consortia of e-journal although not yet stabilized started from print + online, online only licensing content, or safe license, etc. Where as consortia license opened different approach saving lot of administrative costs both for publishers and purchasers. The pricing models are depending on the type of license access models, number of users or PCs in the campus.

Mowat (1996) states that Online Public Access Catalogue (OPAC) is seen as the partial realization to use the database to create a union catalogue. Occhionorelli. C, Archival management by the Milan Chamber of Commerce, Industry and Artisans. Archivi and Computer.

Odlyzko (1997) gives collection economics of Turkish libraries. The limited university library collections and services are a product of chronic budget shortages. The proportion of library budgets to the university budgets range between 0.2% and 3.8%, average being 0.7%. The total amount of money allocated to all university libraries in 1999 was just a little over 10 million US dollars. In contrast, annual operational expenses of Harvard University Libraries is around 60 million US dollars.

Prior (1999) mentions about what one gets with site license fee including extra functionality of e-versions; back files database, search, view, download, print; ILL; access after cancellation; archive.

Baker et al (2000) opined that the vendors work with one group for national resale and administration of a product. The partners, which are
other consortia, agree to certain terms. Within the agreement, the partners can have individual billing and a contract tailored, to a great degree, to their specific needs.

Chang and Shih (2000) suggest that variation in pricing models, access through license and alternative access modes, libraries have to challenge difficulties resulting from human resources, and financial and technical issues. Schneider (2000) visualized that online core journals and pay-per-view, is seen as the most realistic in future. Varian and Kahin (2000) give detailed account of different pricing models including the subscription model, advertising model, transactional model and the bundled/aggregation model in the tabular form as given below:

Bostick (2001) opines that consortia provided an efficient and inexpensive way to purchase an automated library system and the combining of the buying power of the member libraries led to some significant cost savings. American consortia’s quest for solutions to economic problems leads to new and different methods of cooperation. It has led to a different relationship with vendors and publishers, creating new problems and new opportunities.

Prime et al (2001) suggested the need to develop new business models, new cataloguing methods and standards, and ultimately new roles for libraries and librarians. Calls for a push to institute new copyright laws and/or a digital fair use law

Hyams (2001) opined that consortia promote understanding and partnerships in the procurement chain, and suggest libraries to collaborate closely with their suppliers, managing the purchasing cycle in a way that is beneficial to both parties.
Sanville (2001) opined that current practices of journal acquisition are grounded in the legacy of a print bound world in which each library is an island of access for its own users. With electronic desktop delivery to information, increased ease of access allows far greater information use than previously possible. It was also found it appears that improved ease of access has demonstrated the high elasticity in information usage. Libraries and consortia must seek to enable this desirable outcome by adopting purchase models that provide for expanded journal access. The author also suggested that libraries and consortia should promote expanded journal access by taking advantage of a sustainable purchasing model that maximizes information use. Tonta (2001) writes that librarians increasingly feel that they must cooperate to reap the benefits of "economics of scale".

Alexandria (2002) opined that consortia are for acquisition of periodicals, mainly in electronic form in order to secure lower prices and/or more favorable licensing terms. Also opined that help to raise the profile of libraries.

Anglada and Comellas (2002) established relation with collaboration, cooperation and consortia and improvement pricing models and types of licenses. The study found that a number of the parameters used in the calculation of prices are clearly unfavorable at present for some consortia as per the electronic mail lists a declaration 'Why some libraries and consortia are paying too much for e-information'.

Anglada and Comellas (2002) in context of issue like to collaboration, cooperation and consortia states that although pricing models and types of licenses have improved considerably a number of the parameters used in the calculation of prices are clearly unfavorable at present for some consortia.
Ball (2002) talks about the typical cash flow between various stakeholders of information industry. There is seldom any direct cash transaction for the flow of information from library to user. Users are almost universally divorced from the direct funders of libraries – universities, local authorities, etc. This discontinuity, compounded by the difficulty of accurately recording usage, exacerbates the problem of determining whether libraries are actually providing value for money. Further most transactions are handled by intermediaries – booksellers or serials agents. Sometimes they charge libraries; generally they take a commission from the publisher. Any discount to libraries comes out of the intermediary's commission. The price is set by the publisher, whose revenue from the transaction is unaffected by any discount provided by the intermediary. The author discusses the following emerging procurement models: the traditional library consortium print contract; the traditional model applied to electronic resources; the agent model; and publishers new models. He further mention that the model offered by PEAK is interesting with the following access models: traditional subscription; generalised subscription and per article. His further discussions as the outcome of the outcome of the survey covering the following questions on purchase decision chain include: What is the membership? What is the decision-making and management structure? What personnel are involved - dedicated, voluntary, procurement...? What contracts are in operation? How are the contracts managed and what problems are there? What issues and concerns do member libraries have regarding e-resources? What would you like to see in the future in terms of e-content, and how should it be delivered? Should e-resources and traditional procurement be coordinated, and if so how? Are there licensing issues? Are there technical issues?

There is a sense of frustration that little progress seems to have been made with regard to e-resources. This is seen as due in part to the lack of
strategy and awareness on the part of publishers and intermediaries. It is felt that publishers do not know how to sell e-resources to the sector, and the sector does not know how to buy them. Transparency of pricing and the difficulty of assessing the costs and value of the deals on offer were noted as an impediment. The additional costs, in terms of both price and staff commitment, of e-resources were mentioned often.

Byerley and Chambers (2002) stress that librarians must be cognizant of accessibility issues and demand assurance from database vendors that their products are accessible.

Ginn (2002) opined that combined content (print plus online) and consortia offers is complicated but can boost your publications' circulation and profitability.

Gould (2002) in that reviews on resource sharing and electronic periodicals access suggested licensed access to electronic periodicals.

Haavisto (2002) suggest that conditions of access and use must be agreed upon with licensing agreements and contract law, and outlines how many libraries form consortia to negotiate deals with publishers.

Riley (2002) points out that aggregator databases do not follow the accessibility guidelines and consequently are not supplying accessible products.

RBTs suggests for Central funding of consortium agreement subscription for small institutions should be considered.

Rusch-Feja (2002) while describing about the regional consortia for libraries in higher educational institutions; regional multi-type consortia; institutional consortia; and supra regional multitype institutional research
library consortia, notes the importance of the advocacy role of the Information Communication Commission. Sirsi Corporation's UnicornConsortium@ Library Management System has been a good example by the Montana Library Network (MLN), a statewide consortium serving the state's 744 libraries.

Theus (2002) suggests that librarians need to take user demands seriously and to provide access whether or not users need it; mass purchase versus selection; and the arguments for and against aggregated databases.

Trant et. al., (2002) mentions the librarians' concerns about administration, economics, access and use in this new information environment, leveraging resources and, it is hoped, providing cost-effective, unprecedented access to cultural multimedia.

Wiesner and Dugall (2002) found that different acquisition models are well known and their value has still to be established especially from the users' point of view and suggested for working out fair distribution of costs among members of consortia.

Wiesner et. al., (2002) identified the factors like usage patterns, the advantages and disadvantages of 'cross access' and fair distribution of costs among members of consortia.

Yangyi (2002) writes that among the 25 electronic databases acquired by CALIS, 13 were indexes/abstracts and 12 were full-text. In total, 7,000 full-text electronic journals have been acquired for China. With the subscription to electronic databases rather than printed journals, one hundred million yuan RMB can be saved yearly for the country.
Foster et al. (2003) opine that publishers are encouraged to offer additional pricing options that provide increased value for money in certain situations, such as: "pay-by-the-drink" options by which the consortium or library may purchase blocks of journal articles, or may pay only for delivery of the articles that are actually used, or "all-you-can-eat" for selected groups or subject clusters of titles, with "pay-by-the-drink" available for the titles not selected. Publishers are encouraged to also address the needs of more developed nations that may be experiencing extremely weak national currencies.

Foster et al (2003) state that ICOLC is concerned that amid all the changes in scholarly publishing, the annual cost to libraries to maintain information access is still rising faster than either inflation or library budgets. Publishers continue to ask libraries to invest in new publishing initiatives while still maintaining or expanding the print versions of publications, the latter of which continue to increase at rates above inflation or budgets. Today, publishers price most e-journal content using the cost of the print publications as their base price (the "print-plus" model). In many offers from publishers, the pricing of the electronic journal is expressed as an "add-on" to the price of the print product, or alternatively the price quoted is linked to a "no-print cancellation" clause in the contract.

Stern (2003) while commenting on consortial option by discounted prices, opines that one does not often weigh the value of these short-term and long-term consortial costs and benefits compared to the options presented by implementing the newly developing locally determined differential pricing schema. This article will discuss some of these considerations.

Stern (2003) suggests number of ways to measure the quality of user services. The immediate satisfaction of present users, efficiency in
obtaining items on demand, owning materials for potential future use, serving as a clearinghouse for national researchers, or simply reducing expenditures

Bittner (2004) in her presentation opines that in a consortium, members have similar purchasing requirements. Consortia can be organised by purchasers, vendors, or agents. They provide economies of scale for both vendor and purchaser. The discount available is usually proportional to the number of members - the greater the number of members in the consortium, the greater the discount. Takada (2002) suggests that there is need to collect e-journal use statistics to know cost-effectiveness of consortia.

Varian and Kahin (2004) in their book give a detailed account of economics of consortia buying, IPR and related matter. New models for distributing, sharing, linking, and marketing information are appearing. This volume examines emerging economic and business models for global publishing and information access, as well as the attendant transformation of international information markets, institutions, and businesses. It provides those in the public, private, and nonprofit sectors with a practical framework for dealing with the new information markets. Topics addressed include the effects of various technological factors and market environments on pricing; the relationship among classic production costs, transaction costs, and the economic value of intellectual property; the effects of different pricing practices for telecommunications and Internet services on the pricing of information; the bundling and unbundling of information services; changing cost structures and the allocation of rights among authors, publishers, and other intermediaries; the effects of markets for complementary products and services, including advertising, on the pricing and use of information; and policy implications of different pricing models.
2.1.9 Licensing

Licensing is one of the important facet of consortia activity. It could be national level site licensing, for a group of institutions or usage based ones. Ross (1996) highlighted Internet Archaeology that archeology on fully electronic, regular online helps of revenue generation, intellectual property, refereeing, licensing, and long term preservation.

Smith (1996) predicted that licensing options will evolve in the next 5 years due to many key issues affecting librarians and users, clarity, agents and consortia, networking freedom and fees, leasing v/s purchasing, use of information, discounts, obligations of suppliers, superseded discs, and term and termination.

Salonharju (2000) suggest to promote higher education and research by expanding consultation of journals and databases, national licenses are the simplest and most economic method of putting this into practice. The review and selection process should lead to the development of a Request for Proposal (RFP) that should go the publisher/vendor. This task requires considerable diligence and attention to details. An RFP document should include details such as no. of current subscribers and its format, no. of prospective subscribers, access model requirement (electronic only or print + electronic), archival needs and requirement/perpetual access, back-files requirements, cross sharing, training and local customer service support, document delivery rights and limitations, contract period, terms of payment, contractual liabilities, handling disputes, etc., existing members and their geographic distribution, available access infrastructure – IP addresses etc. The ICOLC provides detailed guidelines for technical issues in RFP requirements and contract negotiations (ICOLC, 2000). ICOLC has issued a detailed document on preferred practices for the selection and purchase of e-information in 1998 with an update in 2001 (ICOLC, 1998, 2001).
Foster et. al., (2003) say that ICOLC members object strongly to "no-print cancellation" clauses in licenses and contracts for e-journals, and to pricing models that impose financial limitations or penalties when cancellations are permitted. Publishers should direct more effort toward new pricing models that break away from print-based models, as explained in this document. Publishers should curtail the practice of repurposing or repackaging content (such as republication of articles in multiple electronic journals) in ways that require libraries to pay for the same content multiple times. ICOLC encourages publishers and aggregators to discontinue; (a) the removal of content part-way through a license period; (b) the practice of embargoing content (e.g., not allowing access to the most recent content until a stated number of months after publication); and (c) making content available in the print versions that is not available in the electronic version. However, ICOLC recognizes the value of including important supplemental material in the electronic version that is not practical to include in the print version because of the length or format of the content.

Blanchard (2004) mentions about the value for library through consortia: Accessing additional and relevant content; Justify budget expenditure; Smooth transition from print to online format resources; and Enabling access to all end users, remote or otherwise

2.1.10 User Training and Information Literacy

The dependence of users on library staff is increased due to lack of knowledge about e-journals access technology, retrieval engines, availability of e-resources and their different formats. The training of users is equally important for effective usage of resources.

Ratcliffe (1995) Opined that end user access challenges the existence of libraries and librarians and raises that computer literacy is not a traditional librarianship skill and new technology on library structure,
pooling of resources has resulted in a national public access catalogue service and as a consequence management is now a significant component of staff responsibilities.

Ball (2000) talks about training requirements and issues for users and library staff. Difficulties are cited in familiarising staff with services available. A system of 'trickle-training' is noted by one authority. Some point-of-use documentation is produced; many authorities rely on service providers' documentation and online help. One authority observes that most users ignore the documentation. The diversity of interfaces and search engines, and the level of expertise assumed, are cited as impediments to the general and infrequent user. An increasing level of IT knowledge and sophistication amongst users is noted.

Moyo (2002) opined that the transition from printed to electronic collections has led to changes in collection development practices as well as in the roles of information professionals such as public and technical/access services are converging, demand for a new breed of librarians who understand the entire electronic information scenario. Also it is made clear that there are issues like ownership versus access, consortial access to electronic resources, licensing and authentication, surrogate versus full text electronic resources, and integration of free web content into collections. It was stressed that librarians need to find new ways of optimizing access to electronic resources and to explore ways to fit new technologies and innovations into traditional library structures and practices.

Aiguo (2003) gives an account of user training for accessing CALIS. With the prevalence of retrieval platforms, users must be trained and encouraged to make better use of database resources. It is very important to conduct regular user education. At Southeast University, we have prepared user guides for different databases and make them available for
users. Also, we provide training seminars for our users every week and ask representatives of database vendors to provide training regularly. We have also developed a computer aided instruction system for our electronic resources. In our integrated library management system, our librarian's have fully catalogued the serials of full-text databases according to the MARC format. We also added URLs of the serials in the 856 fields and built a navigating system by discipline classification to integrate our online electronic resources. At present, there are 4 access points to electronic full-text serials: The OPAC system in the library; Navigator system of electronic full-text serials; Linking of secondary literature to primary literature; Direct retrieval via academic databases.

Ching (2003) mentions that to support strategic changes in communication, training programs are positioned as a bridge to facilitate better communication among members. To reduce operational errors and administration costs caused by a lack of skill and professional knowledge, a substantial development in training programs is essential to develop members' competencies and reinforcing their ability to provide quality service. At the second expansion stage, training programs, such as on-the-job training and workshops, are considered necessary to reduce additional hidden costs incurred by the mismatch between each member institution's culture and Taiwan E-book Net (TEBNET)'s core values. Further, it should be noted that training is also needed at management levels. Thus, a change in training programs should not only center on the needs of staff but also that of management.

ALIA Forum (2004) lists training and information support needs: Negotiation (industry specific); Copyright; Consortia and purchasing models; Initial professional training in library schools; Mentors; Model licenses, model clauses; Protocols and standards for licenses; Consortia
and consortia models; Evaluation tools; Access to expertise and Agents can negotiate on behalf of libraries

2.1.11 Archiving

The changes in media has not changed the mindset of owning the product from heritage point of view for use when required in future. Archiving is a very important activity of consortia. Who has to archive, where and what about search engines required for searching archive are some of the issues to be studied. S. F. Suer et. al., (1995) highlights the needs for user training, new challenges, such as providing support for consortia, and new approaches to user education and training. Neavill and Sheble (1996) suggested for cooperative network based archiving by the library community and specified that most reliable archiving option is for individual libraries or library consortia to obtain electronic journals directly from the network and establish their own access and archiving procedures. Problems identified, in long term electronic archiving, are including the short life expectancies of digital storage media, hardware and software dependency, and the need for authentication devices to distinguish between versions of electronic records and ensure that there are no unidentified changes in content.

Occhionorelli (1996) Examines the problems in relation to historical archive conservation, handling and public access, installed automated procedures for archival storage and multiple-search information retrieval programs and expressed satisfaction of implementing an optical memory project in cooperation with a consortium of CCIAs.

Foster et. al., (2003) opine that the issue of heavy costs associated with archiving electronically is an appropriate area for discussion between consortia and publishers before pricing models for permanent access are made final. Publishers should not discourage individual libraries,
consortia, national libraries, or other third parties from developing alternative solutions for archiving electronic journal content—and should actively and effectively support such initiatives instead. In some countries, large consortia or national libraries may be willing and able to take responsibility for archiving, and the cultural environment and technological capabilities of each country should be allowed to determine the best model for archiving.

2.1.12 Future

Ball (2002) predicts future developments in consortia as mentioned below: Development of a national strategy; Institution of a national forum of consortia for deliberation and decision-making; A standard national license (see CUSP's developing standard specification); A national electronic reference shelf with a single interface; A common interface to all e-resources; Both commercial and free content should be made seamlessly available and Flexible but standard authentication.


2.2 SUMMARY OF LITERATURE REVIEW

Many studies on consortia are targeted to discuss overstraining of the financial resources and sharing of risks. Factors like financial constraints, expertise sharing and expectations, needs of the users have compelled the movement of library consortia. At the same time bargaining of price rise by the publishers and acquiring ever-increasing sources of information further substantiated the need for consortia. The concept of consortia and its principles or library partnership have originated during the traditional librarianship itself like Inter-library loan, co-operative
acquisition and resource sharing, but became popular after inextricably bound up with the journal crisis. The consortia became viable after the effective implementation, application and convenience of the ICT. At the same time publishers intention to get control over their resources, particularly that of controlling informal sharing of resources which they considered as threat for their revenue, consortia movement became the drive from their point of view. However the system development of consortia calls for the national policy, covering aspects like e-resource acquisition, pricing, access, licensing, copyright, infrastructure, training, archiving, etc.

At the end of the sixties and the beginning of the seventies librarians were obsessed with a term called preprints, which were exchanged freely among academic and scientific community helped to conduct a kind of peer-review-procedure and prevent the distribution of unqualified or even wrong research results. The transition from printed to electronic journals was often considered as providing value addition and provide access at the working place and the living place in addition to exploitation of integrated multimedia features enabled by ICT.

Even after development of electronic journals, libraries had to pay additional fees at various levels like access, licensing, technology, etc apart from print purchase. The strategy for the pricing and marketing policies of the publishers aims at keeping the turnover (break even) on par with print media. The journal crisis and development of electronic publishing, later the open access initiative have strengthened the formation of consortia. Many of the bibliographic databases were run on the local CD-ROM-networks of individual libraries, later reverted back to central storage at database producers due to value addition which they provided to bibliographic database by linking full text of journals article and open access sources and free online journals. Later aggregators started playing important intermediary role development in bundling the e-journals and
providing value added services including suitable search engine and linkers across the database and the meta-search engines. In the beginning, the consortia came to existence with national license or site license with the assumption that the consortia comes with single entry for nationwide contracts and access to e-resources.

Many consortia related practical problems have been identified as seen through by the literature, like -

- Who is going to negotiate on their behalf apex body consortia hosts of task forces appointed for the purpose?

- Who will sign with licensors/ providers?

- Negotiation is time-consuming process at the beginning to secure the best possible terms and conditions and keeping everyone informed about the state of affairs often is tedious work

- Preparing the text of the license agreement is usually left to librarians, which is an additional risk involved task until one gets proper acquaintance.

Many times the dilemma of libraries in taking part in consortia and maintaining certain terms and conditions of agreement becomes a big problem in the context of particularly Indian Libraries. Since the price for a database or a package for electronic journals depends to a considerable extent on the number of libraries involved, it is essential for the negotiator to know as early as possible the precise number of consortia members, that too if the adopted model is not open ended.

In India to find and get confirmed the participation from the libraries is very difficult and to get unconditional yes for negotiating a contract is
much more tough job. For libraries the question of cancellation of print versions of journals during the duration of the contract is of crucial importance. The relationship between consortia host and participating libraries is based on cooperation and the former cannot guarantee that the latter will not cancel any of the subscriptions falling under the terms of the contract. In some cases the existence of multiple copies within one library system has been especially taken into account. Only one printed copy per site must be guaranteed. In other cases any single printed copy is subject to the non-cancellation clause so that the consortia host must take over the subscriptions cancelled by the participating libraries. Any publisher should be aware of the fact that this practice might prevent a lot of libraries from taking part in a consortium.

The inputs required for equitable and simple method to distribute the additional costs among the participating libraries in a consortium depend on size, usage and financial strength. There is no accepted standard yardstick to measure, the suitability such and of libraries to accept them as a participating centers for consortia.

There is lack of statistics of the actual use of databases and electronic journals in any allocation model, inevitably it is based on institutions number of academic/research staff and/or students. Sometimes reliable figures are not easily available. The usage depends on many factors like level of users, the discipline, activity, etc. These statistics should be split up according to major subject fields such as arts and humanities, engineering, social, natural sciences, medicine, etc especially as a basic input for consortia acquisitions, which is one of the critical factor.

The allocation model must take into account the special situation in STM-research and at the same time do justice to the quite considerable number of students and academicians in the area of arts and humanities.
In an attempt to find an equitable distribution between the basic amount to be paid by every participant and a proportionate surcharge according to the number of academic/research staff (FTE) in certain subject fields led to more or less unsatisfactory results. Seldom some of the libraries would have to pay less by accepting a publisher's offer outside the regulations of the consortium – a reduction to absurdity of the idea of a purchasing association.

The regulations of each contract differ extremely, as a result an unique solution must be found for each consortial agreement. While libraries must find ways to make consortial licenses an easy method to handle and effective means of their acquisition policy in times of financial restraints, publishers and information suppliers must help removing some hurdles hindering the establishing of consortia as an efficient method of selling their products.

The question of usage statistics with a detailed evaluation of different kind of visits, display and download not be solved by all information suppliers to the satisfaction of the libraries. For journals a minimum solution would include the monthly statistical data to be supplied by publishers listing precise number of successful log-ins covering number of visits to titles, abstracts viewed, full texts downloaded, and again participants wise statistics, department wise within an organization, etc. This will help consortia host and the task force concerned to renegotiate with publishers for the next term so as to get maximum benefits with less expenditure.

Of late all publishers and suppliers start from the presupposition that the current number of subscriptions (print subscriptions in case of the journals, individual subscriptions for the databases) form the in contestable basis for all calculations of what a consortium will have to pay.
There is an urgent need to develop new models that will probably contain demographic factors and/or usage data.

The question of long-term archiving entailing permanent access still remains to be solved. Each publisher comes out with very different solutions. There is a need to work on the national level solution for putting an end to this divergence. It is a real concern to all consortia that in the future the complete number of journals on offer from one publisher is no longer can be the basis of the contract. It is absolutely necessary to come to agreement that provide the participating libraries with access to a range of core-journals, which may vary from one consortium to the other. For the remaining titles the access must be organized on the basis of the pay-per-view method. This could give a way out of the journal crisis. It is also found that the pay-per-view solution is far more expensive than a traditional license with cross-access.
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