

National Seminar on Access & Availability of Medical Literature in Electronic Environment (AMLEE-2018)

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DBT's Electronic Library Consortium (DeLCON): A Role Model & Smooth Functioning Consortium in India

D.D. LAL¹

ABSTRACT

This is an era of information explosion. No library fulfil all the requirements of users as well as satisfy all the user's requirements due to limitations. Due to this phenomenon the concept of library consortium has developed. The consortium of libraries is known as resource sharing in the all over the world. Knowledge explosion, appearance of internet as a new medium of information storage make the concept more come into sight than past. This paper deals with the concept, issues and facilities offered by the DeLCON consortium and shows how this consortium is making resources available among the member Institutions and how it became the Role Model Consortium as well as very smooth functioning Consortium in India.

India has many library consortium but there were various issues & constrain under these library consortium. The DeLCON Consortium is an ideal consortium models to adhere for optimum utilization of their resources and services. This paper gives a brief description about the functions of DeLCON Consortium as well as identify the possibilities about establishment, problems and standard models about the library consortium. It believes that functioning of DeLCON consortium is more productive and effective to their member Institutions and user community than the other Consortium in India.

INTRODUCTION

Sharing the experiences or knowledge gained with others is an ascribed feature of human beings. In the similar manner, the knowledge available in libraries, particularly university libraries have to be shared for reasons like, maximum use of collection, making availability of scholarly information, to overcome funds problem, preservation of materials etc. The concept of resource sharing and inter library loan is practiced in these libraries with lot of constraints. Almost all libraries are established with the support of public funds, therefore, the libraries can be named as collaborative enterprises. The library professional realized the importance of sharing resources information skills etc. the developments in the field of information technology and their availability at affordable price, the exchange or sharing of information

is made easy, particularly if the documents in electronic form. Most of the libraries are in a position to acquire information in electronic form now-a-days. This situation led towards development of consortia in libraries. The consortia concept is still good where the participating libraries have interest and requirements of similar nature.

DEFINITION OF "CONSORTIUM"

According to Oxford Dictionary" Consortium means temporary association of a number of countries, institutions, organizations, companies, banks etc. for a common purpose. A library consortium is a collective activity of a group of libraries towards a joint objective of sharing resources.

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A Consortium could be described as a group of organizations who come together to fulfill a combined objective that usefully requires co-operation and the sharing of resources. And need to have a clear mutual goal in order to ensure their success. The aim should be to deliver "more than the sum of the individual parts". A library Consortium formation can be local, regional, state, national and inter institutional level.

Library consortium is a community (a supportive) of two or more information agencies which have formally agreed to cooperative and synchronize of two or more libraries or information agencies which have formally agreed to organise, collaborate or consolidate certain functions" to achieve joint objectives it is an association of group of libraries to achieve joint benefits.

The simplest definition of Library Consortia would be the coming together of libraries to achieve a common goal that is beyond what an individual library could achieve on its own. The world of library consortia is expanding speedily, and with it the range of services and activities undertaken.

Need for Library Consortia

Access to resources is now considered more important than collection building. The consortium facilitated the libraries to get the benefit of wider access to electronic resources at affordable cost and the best term of licenses. A consortium with the collective strength of resources of various institutions available to it is in a better position to address and resolve the problem of managing, organizing and archiving the electronic resources.

Issues during Consortia Formation

Various issues & factors to be taken for an effective functioning of a successful consortium like resource identification on the basis of usage and usability, long run planning of the technology infrastructure, access to back runs of periodicals will have to clearly spelt, copyright and licensing, archival issue, price issue should be economically favourable. Last but not least, designing and launching a library consortium should be long term sustenance and robust models towards achieving the above goals.

Advantages of Library Consortia

The advantages of a consortia reveal that:

1. It provides each institution with the ability to share resources without sacrificing the individuality to each member library.

2. Consortia-based subscription to electronic resources provides access to wider number of electronic resources at substantially lower cost.
3. Enhanced library services are provided with an emphasis on accesses to new electronic resources including databases and services offered through the internet and World Wide Web.
4. Better delivery of services.
5. Better understanding of copyright laws.
6. Electronic Journals demand neither library space nor shelving costs nor can they be stolen from the library

Disadvantages of Library Consortia

1. Consortia require high initial investments in licenses and information and communication technology.
2. Unreliable telecommunication links and insufficient bandwidth
3. Absence of a printed copy of Journals
4. Outdated technology
4. Lack of standards
5. Insufficient knowledge
6. Fear of loss
7. Copyright issues
8. Negative attitudes Lack of archiving and back files availability
9. No tradition of cooperation or Reluctance to participate

Consortia Models

The types of consortia identified are generally based on various models evolved in India in Varsity of forms depending upon participations' affiliation and funding sources.

Open Consortia

This type of consortia is very flexible and it is the wish of members of consortia can join and leave any they please. The INDEST Consortium was an example to this model, but currently it was merged with e-SS INFLIBNET Consortium.

Closed Group Consortia

It is within defined group. This kind of consortia emerges either by affiliation and collaboration among them like CSIR-NKRC, DAE, DBT-DeLCON Consortium, IIM Consortium, IISER Consortium, etc. And the formation and operation of the consortia guidelines and its administration are fairly simple and easy.

Centrally Funded Model

In this Centrally funded model, consortium will purely depend on the parent body. These are the few examples for this model: INFONET by UGC, ICMR, and CSIR-NKRC, DBT-DeLCON Consortium.

Shared-Budget Model

In this model the participating libraries take the lead and form the consortium. The IIM Consortium and FORSA Consortium are examples of this model.

Publisher Initiatives

The Emerald Full-Text Library published by the Emerald Publishing Group (formerly MCB University Press) is recent example. Here, the consortium members will get deep discount price to the participating libraries.

National Consortium

This model of Consortium is a national level licensing of products such as INDEST-AICTE, UGC-INFONET, now became as e-SS Consortium.

e-Shodh Sindhu (eSS Consortium)

Based on the recommendation of an Expert Committee, the MHRD has formed e-Shodh Sindhu merging three consortia initiatives, namely UGC-INFONET Digital Library Consortium, NLIST and INDEST-AICTE Consortium. The e-Shodh Sindhu will continue to provide current as well as archival access to more than 15,000 core and peer-reviewed journals and a number of bibliographic, citation and factual databases in different disciplines from a large number of publishers and aggregators to its member institutions including centrally-funded technical institutions, universities and colleges that are covered under 12(B) and 2(f) Sections of the UGC Act.

Website & Links of the Library Consortium in India

- INDEST-AICTE Consortium (<http://paniit.iitd.ac.in/indest/>)
- UGC-INFONET (<http://web.inflibnet.ac.in/info/ugcinfonet/ugcinfonet.jsp>)
- N-LIST Consortium (<http://nlist.inflibnet.ac.in/>)
- CeRA Consortium (<http://cera.iari.res.in/index.php/en/>)
- CSIR-NKRC Library Consortium (<http://nkrc.niscair.res.in/>)
- DBT's Electronic Library Consortium (DeLCON Consortium) (<http://delcon.gov.in>)
- DRDO Consortium (<http://dsl.drdo.gov.in/ejournals/home.html>)
- DAE Consortium (<http://www.csr.res.in/>)
- FORSA Consortium (Astronomy and Astrophysics Libraries) (<http://www.rri.res.in/htmls/library/forsa.html>)
- ISRO Library Consortium (<http://14.139.110.237/AE/rss>)
- IIM Library Consortium (<http://library.iima.ac.in/iimconsortium/>)
- ERMED Consortium (<http://www.nml.nic.in/>)
- RGUHS-HELINET Consortium (Rajiv Gandhi University of Health Sciences, Karnataka) (<http://www.rguhs.ac.in/digitallibrary/RGUHS%20Digital%20Library.htm>)
- ICMR Library Consortium (http://icmr.nic.in/icmrnews/e_consortia.htm)
- MCIT Consortium (<http://mcitconsortium.nic.in/>)
- eSS Consortium (<https://www.inflibnet.ac.in/ess/>)

Benefits of Library Consortia

- Scope for electronic archives
- Availability and monitoring of usage statistics
- Getting deep discounts through joint pricing negotiations – hence lower unit cost of information
- Can be read anywhere in the world, at any time, by any number of people as long as the readers have an internet connection
- Also allow the inclusion of audio-visual material as well as the other formats and technological innovations that are available on the Internet, such as keyword searching
- Articles include links to other cited journals, e-books, and other supporting material making research more convenient
- Reduced storage costs
- Developing common resources databases
- Effective document delivery systems
- A single interface and access point
- Enhanced search facilities
- Better scope for developing a union catalogue among participating libraries

About 'DeLCON Consortium'

The full form of 'DeLCON' is "DBT's Electronic Library Consortium". The 'DeLCON Consortium' has been set up

by the Department of Biotechnology (DBT) to promote the use of electronic databases and full text access to journals by the Research and academic community in the country.

The 'DBT's Electronic Library Consortium (DeLCON)' is a major initiative of the 'Department of Biotechnology (DBT)' to bring qualitative change in their research Institutions. It was launched in year January, 2009 with 10 DBT member Institutions with a large number of high impact online journals. It is a National initiative for providing access to scholarly electronic resources including full-text and bibliographic databases in all the life science subject disciplines to DBT Member Institutions. It enables access to high quality e-resources to DBT research Institutions in the country to improve teaching, learning and research.

The 'DeLCON Consortium' provides current as well as archival access to more than 917 core and peer-reviewed journals and one bibliographic database (SCOPUS Database) in diverse disciplines from 20 Foreign publishers. Initially, the access to all major e-resources were given to 10 DBT member Institutions in the year 2009. It was further extended to 17 more DBT Institutions in 2nd phase of extension in the year 2010 and 07 members were added in the 3rd phase of extension in the Year 2011.

The primary beneficiaries are the Faculties, Scientists, Research Scholars, Students and Project Assistants of Institutions covered under DeLCON. The DBT sponsored the entire expenses for DBT member Institutions for providing e-Journals access through 'DeLCON Consortium'.

The DeLCON Consortium presently comprises the following 34 Member Institutions which are given below:

DeLCON 34 Members

- National Brain Research Centre (NBRC), Manesar
- Department of Biotechnology (DBT), New Delhi
- National Institute of Plant Genome Research (NIPGR) – New Delhi
- National Institute of Immunology (NII) – New Delhi
- National Centre for Cell Science (NCCS) – Pune
- Institute of Life Sciences (ILS) – Bhubaneswar
- Institute of Bioresources and Sustainable Development (ISBD) – Imphal
- Centre for DNA Fingerprinting and Diagnostics (CDFD)—Hyderabad
- Rajiv Gandhi Centre for Biotechnology (RGCB)—Thiruvananthapuram
- International Centre for Genetics and Engineering Biotechnology (ICGEB), New Delhi
- Biotechnology Industry Research Assistance Council (BIRAC), New Delhi
- National Agri-Food Biotechnology Institute (NABI), Mohali, Punjab

- National Institute of Biomedical Genomics (NIBHG), Kalyani, Kolkata
- National Institute of Animal Biotechnology (NIAB), Hyderabad
- Dibrugarh University (DU), Assam
- Assam University (AU), Silchar
- North Eastern Regional Institute of Science & Technology (NERIST), Arunachal Pradesh
- North East Institute of Science & Technology (NEIST), Assam
- Mizoram University (MizU), Mizoram
- D. M. College of Science (DMC), Manipur
- Sikkim University (SU), Gangtok
- College of Veterinary Science, Assam Agricultural University (CVSAAU), Guwahati
- St. Anthony's College (SAC), Meghalaya
- Gauhati University (GU), Assam
- Manipur University (ManU), Imphal
- College of Veterinary Science & Animal Husbandry Central Agricultural University (CVSAHCAU), Mizoram
- Rajiv Gandhi University (RGU), Arunachal Pradesh
- Nagaland University (NU), Nagaland
- North-Eastern Hill University (NEHU), Shillong
- Indian Institute of Technology Guwahati (IITG), Guwahati, Assam
- Regional Centre for Biotechnology (RCB), Gurgaon
- Tezpur University (TU), Tezpur, Sonitpur, Assam
- Transnational Health Science & Technology, Institute, Gurgaon
- Sikkim State Council of Science and Technology (SSCST), Gangtok, Sikkim

In terms of number of users, the DBT's Electronic Library Consortium (DeLCON) is the largest Consortium in India in the term of Life Sciences & Biotechnology Subject area with a vision and plan to reach out to all DBT Institutions departments, Research Institutions, Universities, and their colleges affiliated to the DBT, over a period of time.

Why the DeLCON Consortium

Thorny problems like shrinking budgets, growing patron demands, rising costs of books and periodicals led to the crystallization of such a concept for the Library & Information Systems. The primary purpose of Library Consortium is to share information resources, which means the Books, Periodical, e-journal, e-books so and so forth. Advances in Computer, information and telecommunication technologies have revolutionized the way in which information is acquired, stored, accessed and transferred. Sharing electronic resources has rapidly become another important goal for library consortia.

Users of Library and Information Services Systems of Biotechnology are widely spread throughout India and located in different locations. A number of research and development works are going on regularly and the users requires a daily update. However, they get the information after a big gap of time in the hard copy form.

Issues Considered Before Formation of DeLCON

Several issues to be taken in account for an effective functioning of a successful DeLCON consortium like resources identification on the basis of usage and usability, long term planning of the technology infrastructure, access to back runs of periodicals will have to clearly spelt, copyright and licensing, archival issue, price issue should be economically favorable.

Last but not least, designing and launching the DeLCON consortium was made in order achieve its long-term Sustenance and robust models towards achieving the above goals.

Formulations covered under the DeLCON Consortium:

- Identifying & evaluation of electronic resources and subscription
- Identification and evaluation of Infrastructure requirements
- Identification and evaluation information resources of print format of subscription
- Establishment of Integrated model to enable single web based Interface / Portal.
- Consolidation of the electronic resources for online access
- Cost effectiveness - (Independent / Consortium, Distributed vs Centralized).
- Copyright issues & right management
- Licensing strategies & terms of access
- License negotiations & subscription
- Participation & membership
- Quality improvements
- Access control & delivery
- Training and Workshop
- Services & Benefits to be offered
- The caption & call for 'Sharing Resources, Sharing Risk, Sharing Success'

Advantages of DeLCON Consortium

These are the major advantages of the DeLCON consortium:

- Consortia-based subscription to electronic resources provides access to wider number of electronic resources at substantially lower cost;

- Facilities to build up digital libraries
- Electronic Journals demand neither library space nor shelving costs nor can they be stolen from the library
- Helpful to provide better library services like CAS and SDI
- Optimum utilization of funds.
- Cost Sharing for Technical and training support
- Economy in maintaining
- The DeLCON consortium have been offered better terms of licenses for use, archival access and preservation of subscribed electronic resources, which would not have been possible for any single institution; and
- Available 24 hours a day, 7 days a week i.e. called 24X7 access
- DeLCON is a non-profit making and an association of library, documentation and information centres of the institutions under the 'Department of Biotechnology (DBT)'
- Features of DeLCON Consortium
- The consortia-based subscription to e-resources is a viable solution for increasing the access to electronic resources across DBT institutions at a lower rate of subscription. Major benefits of DeLCON Consortium are as follows:
 - Users have immediate access to material previously not subscribed to, at no incremental cost for accessing back files;
 - It improves the existing library services and reduced the subscription cost;
 - The DeLCON Consortium acts as a single-window service for a large number of DBT Institutions with their diverse research and academic interest;
 - The DeLCON Consortium, with its collective strength of participating institutions, attracts highly discounted rates of subscription with most favourable terms of agreement for a wider range of e-resources. Most of the e-publishers have responded positively to the call of the Consortium. The rates offered to the consortium are lower, depending upon the category of DBT institutions;
 - The research productivity of DBT institutions is expected to improve with increased access to international full-text resources (Journals and database);
 - The DeLCON Consortium is expected to trigger remarkable increase in sharing of electronic resources amongst participating DeLCON members
 - The DeLCON Consortium has been opened-up to add more DBT institutions through its next phase of extension and other DBT institutions can also join the DeLCON Consortium and get the benefit of not only



highly discounted rates of subscription but also the favourable terms and conditions;

- Members of the DeLCON Consortium have the benefit of cap on the annual increase in the rates of subscription. While the usual increase in price of e-resources vary from 15 % to 20%, but the DeLCON consortium members enjoys the cap on increase in price ranging from 5% to 7%;
- Since the subscribed resources is accessible online in electronic format, the DBT institutions have less pressure on space requirement for storing and managing print-based library resources. Moreover, all problems associated with print media such as their wear and tear, location, shelving, binding, organizing, etc. are not an issue for electronic resources.
- The DeLCON Consortium is offered better terms of agreement for use, archival access and preservation of subscribed electronic resources, which would not have been possible for any single institutions.

e-Resources Covered Under 'DeLCON Consortium'

The DeLCON Consortium subscribes to e-resources covering all most important Life Science & Biotechnology subject discipline being taught in the DBT research Institutions, Universities & Colleges. It includes wide variety of materials e.g. e-journals, bibliographic databases, reviews published by scholarly societies, university presses, institutional and commercial publishers. The DeLCON Consortium subscribes to 1171 full-text e-resources and 01 bibliographic database from 21 renowned foreign publishers and some of aggregators. The member institutions are provided differential access to these resources based on their needs and activity profile as per the recommendation of the National DeLCON Steering Committee.

The complete list of full-text resources (e-Journals) and bibliographic databases subscribed under the DeLCON Consortium is given in Table 1.

Table 1: List of Covered Journals under DeLCON Consortium

Sl.	Name of Publishers / Journals	Hyperlink of the publishers	No. of Journals
1	American Association for Advancement of Science (AAAS)	http://www.sciencemag.org	(3 Journal)
2	American Association for Cancer Research (AACR)	http://www.aacr.org	(9 Journals)
3	American Chemical Society (ACS)	http://pubs.acs.org	(47 Journals)
4	Annual Reviews (AR)	http://www.annualreviews.org	(23 Journals)
5	American Society for Biochemistry and Molecular Biology (ASBMB)	http://www.jbc.org	(2 Journal)
6	American Society For Microbiology (ASM)	http://www.asm.org/	(17 Journal)
7	Cold Spring Harbor Laboratory Press (CSHL)	http://www.cshl.edu	(4 Journals)
8	Informa Healthcare / (INFORMA HC)	http://www.informaworld.com	(40 Journals)
9	Lippincott William & Wilkins/ Wolter Kluwer / OVID	http://ovidsp.ovid.com	(11 Journals)
10	Marry ANN Liebert (MAL)	http://www.liebertonline.com	(92 Journals)
11	Nature Publications	http://www.nature.com	(36 Journals)
12	Oxford University Press (OUP)	http://www.oxfordjournals.org	(22 Journals)
13	Springer India	http://www.springerlink.com	(339 Journals)
14	Society for General Microbiology (SGM)	http://mic.sgmjournals.org	(3 Journals)
15	American Society for Hematology (ASH)	http://bloodjournals.hematologylibrary.org	(1 Journal)
16	Wiley-Blackwell	http://www3.interscience.wiley.com/cgi-bin/home	(84 Journals)
17	Elsevier Science (ScienceDirect)	http://www.sciencedirect.com	(432 Journals)
18	American Society of Plant Biologist	http://www.aspb.org/	(2 Journals)
19	American Association of Immunologist	http://www.aai.org/	(1 Journals)
20	Scopus Database	http://www.scopus.com	(1 Database)
21	The New England Journal of Medicine (NEJM)	http://www.nejm.org	(1 Journal)
22	Proceedings of National Academy of Sciences (PNAS)	http://www.pnas.org	(1 Journal)

Table 1: List of Publishers, Link of website and Covered Number of Journals

Disciplines & Subjects Covered under DeLCON Consortium

The DeLCON Consortium cover-up all the disciplines and subjects coming under Life Sciences i.e. Biotechnology, Bioinformatics, Biochemistry, Biology, Chemical Biology, Sciences, Immunology, Neuroscience, Plant Genome, Plant Biology, Microbiology, Physiology, Psychology, Physiotherapy, Psychotherapy, Genome, Gene, Genetics, Mathematics, Physics, Chemistry, Radiology, Medicines, Computational Biology, Cell Biology, Cell Sciences, Molecularbiology, Molecular and Cellular Biology, Computational Neuroscience, System Neuroscience etc.

- Well-established multi-disciplinary resources with broad coverage were preferred over highly specialized sources targeted for specialists;
- Resources that are 'electronic-only' were preferred over those that are print-based;
- Selections were made on usage / suitability of e-resources to DBT Institutions.
- Resources that are very important but highly cost-intensive were preferred over those which are less important or less-used but low cost;
- Resources where electronic versions are made available free on subscription to their print versions were avoided as far as possible; and

Subscription Procedures for e-Resources under DeLCON Consortium :

Once the electronic resources proposed for subscription are identified, proposals invited from the publishers of e-resources / their authorized representatives. Electronic publishers / their representatives are also invited for formal negotiations on their products and services. In the formative years of the DeLCON Consortium, the 'DeLCON Steering Committee' negotiates the lowest rates of subscription and favourable terms of agreement.

Negotiation for subscription to e-resources perform by a Negotiation Committee which constituted by the Department of Biotechnology (DBT) as per the purchase policies and rules.

While the DeLCON Steering Committee takes policy decision regarding inclusion of member institutions, e-resources, etc., the Negotiation Committee is responsible for negotiating rates of subscription to e-resources with different publishers for all DBT Institutions. Once resources and members of DeLCON are finalized, the DeLCON places order for subscription to e-resources to the publishers as per the purchase rules. The DeLCON is also responsible for signing License agreement on behalf of the members of DBT Institutions covered under the DeLCON. The DeLCON supports the administrative management of Consortium from 'National Brain Research Centre', Manesar.

Operations of DeLCON Consortium

The DBT Institutions have been fully funded by DBT for connectivity under DeLCON and will have network connectivity. Individual Institutions will then have unique static IP address through which access is given by the publishers for which subscriptions made. However entire programme will be administered, monitored and

How Resources Selected under DeLCON Consortium

The print & online collection base available in DBT research Institutions libraries and their necessities was surveyed with an aim to identify and determine e-resources to be subscribed under the DeLCON Consortium. In order to understand the collection base in DBT member Institutions, meetings of Head's of DBT, & Nodal Officer's were held in different parts of the country and their views and responses were obtained. Based on their responses & inputs received from DBT members, e-resources of various publishers were identified and evaluated before negotiating & licensing arrangements. Keeping in view of the diversity of DBT Research Institutions programmes offered by member Institutions, every attempt was made to subscribe to e-resources that are multidisciplinary in nature with wide scope and coverage.

All the e-resources were assessed for their i) qualitative and quantitative contents; ii) coverage; iii) their availability on different platforms and their comparative advantages & disadvantages; and iv) rates applicable for these resources to individual institutions as well as to other consortia. The electronic resources proposed for consortia-based subscription were selected based on the given major criteria:

- Electronic resources already on subscription in the DBT research Institutions were preferred over those which are not being used in any of them;
- Resources from scholarly societies, university presses and not-for-profit projects were preferred over commercial publishers;

Fig. 1: Home Page of 'DeLCON Consortium': <http://delcon.gov.in>

maintained by 'DeLCON Nodal Centre (NBRC)' and 'DeLCON National Steering Committee'.

Issues & Challenges of Library Consortiums in India

Consortium have its inherent benefits but those benefits can be maximized, while minimizing the negative aspects. The benefits of the consortium can lurk by several issues, results the failure of consortium. In the current scenario, it found that the various existing library consortium in India could not materialized and facing various issues & challenges, reasons may be the following:

- **Lack of awareness and understanding:** Head & Coordinators of Some Consortium, especially do not fully comprehend the concept of consortia based subscription to electronic resources and are not very keen to go whole-heartedly for formation of consortium of libraries. Sometimes they do not have good understanding about Library consortium and its benefits.
- **Speed of decisions:** Concept that, belonging to consortium the speed of decision of individual libraries and members are leisurely & slow. However, it depends upon centralized and decentralized of consortium.
- **Budget and funding:** These are always thorny issues regarding funds & budgets. Belonging to a consortium means that part of library budget will be transferred and the issue of loss of control raises again. Lack of

initial funds of libraries may be a barrier for library consortium.

- **Technological compatibility and security:** The compatibility of the members computing system is critical if a consortium is to achieve the maximum benefit from technology. Various library tools and software becomes difficult for the members to acquaint with different systems. Security is also an another technical issue.
- **Fear from local identity:** Most of the libraries don't want to feel like they are losing their individual identity. They think, if they enter into a consortium they may loss their local identity. -
- **Type of agreements:** Agreements between member libraries can have major impacts on the consortium's effectiveness. It has been found that some libraries did not want to join in the consortia simply because of the agreement that was not of their choosing.
- **Egos and attitudes:** Egos and attitudes of individuals or organizations can have a big impact on the success or failure of a consortium.
- **Consortium as a Legal Entity:** Library Consortium need to have a legal entity with permission and authority to deal with institutions for collecting subscription amount on behalf of the participating libraries, if case of decentralized funding.
- **Lack of automation:** A consortium without sharing the resources of the participating libraries is limited to online subscriptions made available from gateway portal. Many libraries and their resource remain inaccessible till complete automation.

- **Lack of resource:** The resources of all participating libraries needs to be balanced to certain extend. Without some form of parity of collection of each library there is a risk of one library becoming a lending library while others becoming borrowing libraries.
- **Unavailability of web environment:** Unavailability of web environment among the member libraries is one of the major problems for accessing in the library consortium. Internet connectivity is still in primitive stages which make online consortia almost unfeasible.
- **Lack of leadership:** Excellent leadership will begin with the notion of enabling every-one who works in the library or consortium to grow in knowledge, ability, and commitment as the primary task. Various Consortium in India have lack of creative leader and skilled management.

higher institutions because without library consortia, users are not able to get the quality resources for their academic activities. In the present scenario, where other library consortium are facing difficulties whereas, the DeLCON Consortium is the most popular consortium in India among rest of the consortium. With the help of DeLCON Consortia, many member institutions and other libraries are able to manage their information resources with limited budget.

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CONCLUSION

The 'DeLCON Consortium' is resources-sharing Organization formed by Department of Biotechnology (DBT), Government of India. Variable termed as cooperatives, networks, collectives, alliances or partnership etc. the DBT e-Library Consortium is an association established by formal agreement, usually for the purpose of improving services through resource sharing among its members.

The DeLCON Consortium with its collective strength of participating Institutions, has attracted highly discounted rates of subscription with most favorable terms of agreement. The DeLCON Consortium exploiting the features of the e-journals as well as in effecting savings.

The DeLCON Consortium is at the doorsteps to prove the library cooperation locally, regionally, nationally and internationally. It is one of the emerging tool kits for most of the libraries to survive in the changed environment under the shadow of ever changing information technology.

Many of the libraries & Consortium facing challenges in providing information to satisfy the users. A wide variety of technology and resources options that exist now are regularly updated. Considering the size and volume of efforts for implementation of the whole initiatives, a pilot study was made for finding a more effective way to archive the goal. Therefore it was described as a model approach which helps to understand the potential requirement, processes and above all the cost involved in undertaking the DeLCON Consortium in a real situation. The framework was helpful at the implementation level.

In the current Digital Era, library consortium are the life line and their websites are the sole source of information for all academic activities (teaching, learning & research) in

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