

IMPLEMENTATION OF B2B MARKETING IN HIGHER EDUCATION FOR MARKETING OF E-RESOURCES: IN CONTEXT OF NLIST, UGC-INFONET AND E-SODH SINDHU

Pallavi

INFLIBNET Centre, Gandhinagar, Gujrat (India)

E-mail: srivastav.pal55@gmail.com

Abstract

This article basically deals with the importance of marketing of e-resources to improve the quality and usage for research in higher education. How B2B marketing can help the research activities in higher education by providing the service of easy and cheap access of e-resources. Study has been made by using data analysis of consortia of INFLIBNET centre's NLIST, UGC-infonet and e-Sodh Sindhu.

Keywords: Consortia, e-resources, B2B marketing, INFLIBNET centre, NLIST, UGC-Infonet,

1. Introduction

The development of the internet and the World Wide Web (www) in the 1990s provides a large and strong interface to publish and share the information on global platform. No of users from 2000 to 2016 reach from 414,794,957 to 3,424,971,237 which shows 46.1% hike in 2016 from 2000 [2]. More no of users show more ingenious use of internet for reading, writing, publishing, business, learning etc. "The rapid growth of internet users has made the internet an increasingly important and attractive platform for business transactions" [1].

The effect of internet also influenced the learning style and system and the vigorous growth of information flow on internet promote the use of marketing to provide the right information to right user at right time.

Traditionally delivery of information or educational resources in institutions or libraries is like business to customer kind of where individual purchase for themselves only.

But when we talk about cooperation among institutions for sharing the library resources a new trend of business to business (B2B) marketing comes with solution as consortia and library network centres which provide cost-effective and efficient services to its users that the libraries individually could not afford.

2. What is B2B marketing?

Business-to-business marketing (or B2B marketing, as it is commonly known) involves the sale of one company's product or service to another company [3]. This B2B facilitates the transfer of or part of products, services or information to another company or body which distribute these all to users or group of users. In this way B2B plays an important role as an intermediary between providers and potential customers that need their specific services.

Business to business (B2B) is a type of commerce transaction that exists between businesses, such as those involving a manufacturer and wholesaler, or a wholesaler and a retailer. Business to business refers to business that is conducted between companies, rather than between a company and individual consumers [4].

2.2 B2B in the context of library

In context of business and marketing of e-Resources there are publishers, aggregator etc. (suppliers) which provide electronic resources to the libraries (customers) which provide the access of those resources to its registered users. After the application B2B in library one or a group of institution, organization or body can purchase the resources from different publishers and provide the access facilities of these resources of different publishers to other group of users/libraries and always get a new target group like transaction between retailer and a wholesaler.

2.3 Benefits of B2B marketing

1. **Get a new target group**
2. **Cost reduction through long-term customer loyalty**
3. **Clear structure and collaborative interaction**
4. **opportunity to expand**
5. addition of another distribution channel increases the awareness of your company
6. B2B helps in lowering the cost for selling and marketing.
7. With advancement in technology B2B can be done with the help of Electronic commerce.

3. History of consortia in India

Cooperation amongst institutions for sharing the library resources is being practiced for decades to provide cost-effective and efficient services to its users that the libraries individually could not afford. Traditionally, primary purpose of establishing a library network was to share physical resources including books and periodicals amongst members. As collaboration flourished, the networks and cooperatives were focused on automation coupled with the increased use of computers in bibliographic processing activities and database searching.

The Internet, particularly the World Wide Web (WWW) has emerged as a new way of information delivery which triggered proliferation of web-based full-text online resources. where increasing number of publishers are offering electronic access to their publications to the international community of scientists and researchers using Internet

technology, these libraries and library networks are also evolving technologies by redefining their functions and services. These new technologies are continuously driving the library resources to new peaks of usage, significantly beyond the library's subscribed content. The combination of these developments has resulted in development of "Consortia-based subscription" to electronic resources everywhere in the world.

Consortia-based subscription to electronic resources, purchase the e-Resources from different publishers make a bundle of that available resources and permits successful deployment and desktop access to electronic resources at highly discounted rates of subscription, on the other hand, it meets with the increasing pressures of diminishing budget, increased user demands and rising cost of research.

Library networks and cooperatives were formed as early as the 1930s essentially to provide better and faster services to its users. The real drive for cooperation was seen during the eighties when the focus of cooperation shifted towards resource sharing and number of initiatives were taken to achieve collective objectives of libraries by working together" (Sewell 1981). The biggest impetus for the development of formal library network occurred after 1960 when automating library processes became a possibility. For many libraries, forming or joining cooperatives was the only way that they were able to afford expensive integrated library systems. In 1967, OCLC (then known as the Ohio College Library Centre) was established, which, in turn, led to development of several regional library networks in USA such as NELNET, ILLNET, PALINET and SOLINET, etc which were primarily established to extend shared cataloguing services of OCLC to libraries in a given region or state in USA. At the time when OCLC developed in USA, other networks grew in Canada, UK and Australia essentially to share MARC catalogue records.

Owing to inadequate communication facilities in India, library networks were almost non-existent in India until the end of 1980. The growth of library Networks in India can be traced to the initiatives taken by NISSAT in the year 1986. The CALIBNET was established in 1986 followed by the DELNET in 1988 with initial funding from the NISSAT. Establishment of the INFLIBNET by the University Grants Commission (UGC) in 1991 as a national-level network can be considered as a major turning point in the evolution of library networks in India. The table given below provides detailed information on Library Networks in India.

3.1 About NLIST, UGC-Infonet and e-Sodh Sindhu

The Project entitled "National Library and Information Services Infrastructure for Scholarly Content (N-LIST)" graduated to be a regular scheme of the UGC as college component of the UGC-Infonet Digital Library Consortium. Earlier, the project was jointly executed by the UGC-Infonet Digital Library Consortium, INFLIBNET Centre and the INDEST-AICTE Consortium, IIT Delhi with financial support from the Ministry of Human Resource Development under its National Mission on Education through ICT. The N-LIST project, using a highly innovative access model, provides access to 6,328 e-journals and 97,333 e-books to all Govt.-aided as well as non-aided colleges through a proxy server installed at the INFLIBNET Centre. Electronic resources subscribed under N-LIST project covers all relevant areas taught in colleges such as arts & humanities,

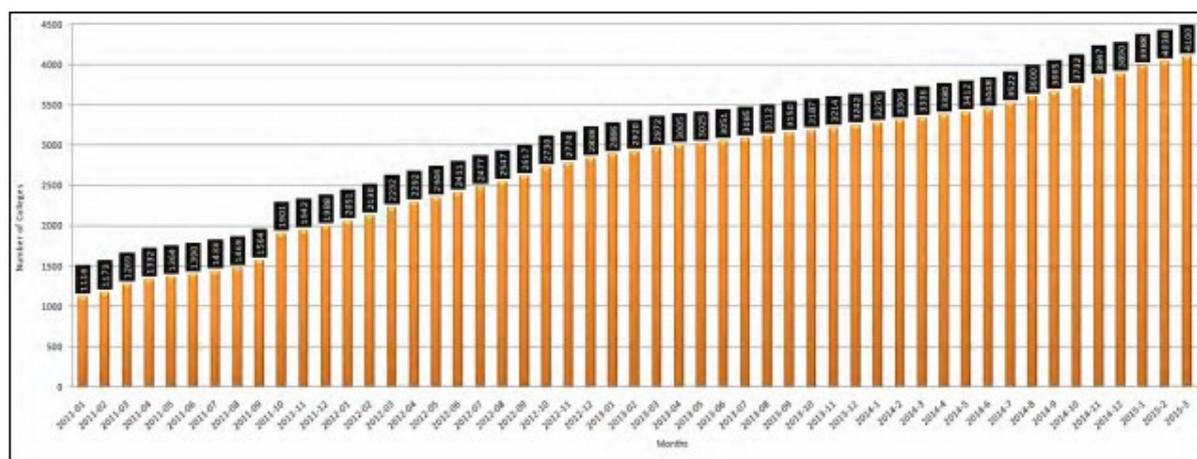
social sciences, physical and chemical sciences, life sciences, computer sciences, political sciences, library and information science, law, business, mathematics, statistics, etc. A separate website is maintained for the National Library and Information Services Infrastructure for Scholarly Content (N-LIST).

31.1. Current Status

The N-LIST has registered a total number of 4,501 colleges as on 31st March, 2015 including 4,100 eligible colleges that are already getting access to e-resources subscribed under the N-LIST Annual Report April 1, 2014 to March 31, 2015 INFLIBNET Centre - 39 - programme. Log-in IDs and passwords have been issued to more than 8,08,613 faculty members, students and researchers after obtaining list of authorized users from these 4,100 registered colleges. Group login ID and passwords have also been issued to colleges awaiting list of actual users. Efforts are being made to enrol more colleges through advertisements in newspaper as well as by organizing training and orientation programmes through affiliating universities and regional offices of the UGC.

Increase in Number of Colleges

Figure 24 given below reflects consistent increase in number of colleges who joined the N-LIST Programme during the period January 2011 to March 2015. The number of colleges that have joined the N-LIST Programme has increased from 1,116 in January 2011 to 4,100 by the end of March 2015. See figure no. 01



the N-LIST programme contain electronic journals as revealed in the Table 1 given below.

Sl. No.	E-resources	Publishing Country	No. of Journals	Back files from
1	American Institute of Physics	USA	18	Ten yrs.
2	American Physical Society	USA	10	Ten yrs.
3	Annual Reviews	USA	33	Ten yrs.
4	Cambridge University Press	UK	224	Ten yrs.
5	Economic and Political Weekly (EPW)	India	1	1966+
6	Indian Journals	India	186	2007+
7	Institute of Physics	UK	46	Vol. 1+
8	JSTOR	USA	2500	Vol. 1+
9	Oxford University Press	UK	206	1996+
10	Royal Society of Chemistry	UK	29	Ten yrs.
11	H. W. Wilson	USA	3,075	1982+
	Total		6,328	

Table 1: Electronic journals of N-LIST programme

3.1.3. Electronic Books

Electronic books are either subscribed on annual subscription basis as in case of ebrary or are purchased on one-time payment and perpetual access basis as in case of all remaining publishers listed below. Total number of electronic books accessible to colleges under N-LIST programme exceeds 1,19,000 as revealed below in the Table 2.

Sl. No	E-book Name	Available Books	Purchased Books	Access Available
1	E-brary	83,024+	83,024+	83,024+
2	Cambridge Books Online	13,966	1,800	6,000+
3	EBSCO Host-Net Library	4,436	936	4,436
4	Hindustan Book Agency	65	65	65
5	Institute of South East Asian Studies(ISEAS) Books	382	382	382
6	Oxford Scholarship Online	6,577	1,402	1,402
7	Springer eBooks	50,208	2,300	18,000+
8	Taylor & Francis eBooks	40,000+	1,800	4,500+
9	Mylibrary-McGraw Hill	2,50,000	1,124	1,124
10	Sage Publication eBooks	2,700	1,000	1,000
11	Open Access (Net Library)		3,500	
	Total	4,51,358	97,333	1,19,433

Table 2: no. of e-Books in NLIST program

3.1.4. Implementation Methodology

E-resources subscribed under the UGC-Infonet Digital Library Consortium are being made accessible to universities on their respective IPs. However, since most of the colleges registered under the NLIST programme do not have static IP addresses, access to e-resources based on IP filtering cannot be implemented for colleges. Moreover, most of the publishers were reluctant to handle authentication for large number of users from thousands of colleges who had to be given freedom to enrol themselves for the N-LIST Programme at any time during the year.

As such, the INFLIBNET Centre has implemented EZ-Proxy from OCLC for authenticating registered users. Individual users from colleges can directly access and download articles from journals and chapters from books directly from publisher's website once they are duly authenticated as authorized users through the authentication mechanism deployed at the INFLIBNET Centre.

3.1.5. Cost-effectiveness of the N-LIST Programme

The cost-effectiveness of N-LIST programme can be judged by factors such as number of beneficiary colleges, full-time potential users in these colleges, cost of e-resources subscribed and expenditure on e-resources per college and per potential user. The N-LIST programme is a cost-effective proposition because of large number of colleges with larger number of potential users and potential for growth. These factors are discussed below in detail.

3.1.6. Economics of N-LIST Programme

Cost recovery, cost avoidance and (lower) rates of subscription are factors that determine economic viability and cost-effectiveness of consortia-based subscription to e-resources. These factors are discussed below briefly.

3.1.7. Cost Recovery

The recovery of cost incurred on e-resources subscribed through the N-LIST Programme can be judged in terms of intensity of use of resources. The cost recovery is calculated on the presumption that if the electronic resources were not available through the N-LIST programme, articles downloaded from these resources by the member colleges would have been sourced on inter-libraryloan or through document delivery services at a cost of US \$ 15.00 per article. (Average cost of article taken from a study conducted by the American Research Libraries (ARL)). As evident from the Figure 02 given below, the N-LIST Programme has recovered the cost incurred on subscription for all e-resources.

The total cost that has been recovered for the year 2014 amounts to Rs. 101.18 crores as against the total expenditure of Rs. 8.74 crores with Rs. 92.44 crores as the cost of articles downloaded in excess.

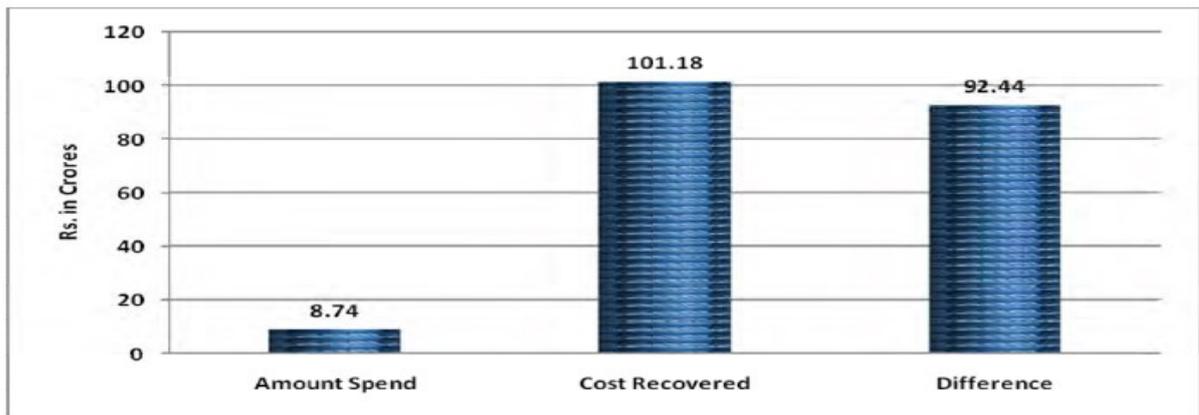


Fig. 02 Cost Recovery Factor of e-Journals Subscribed under the N-LIST Programme for 2014

3.1.8. Lower Rates of Subscription

The N-LIST programme has used a highly innovative pricing model for subscription to e-resources wherein one subscription (equivalent to one subscription paid for a university in the UGC-Infonet Digital Library Consortium) is paid for a group of 200 colleges given the fact that extending the prevalent pricing models to college would have been highly expensive, unaffordable and impractical for the college component of the UGC- Infonet Digital Library Consortium. As such, a total number of 20 subscriptions (on prorate basis) were paid for 4,100 colleges during the financial year under report.

3.1.9. Cost Avoidance

Cost avoidance is calculated in terms of difference in cost paid by the N-LIST programme for colleges and list price of e-resources including e-journals and e-books. Figure 03 given below shows that there is a notional savings of Rs. 13,892.83 crores considering the fact that the same sets of resources on list price would have cost Rs. 13,908.64 crores as against Rs. 15.81 crores spent under the N-LIST programme for the year 2014.



Fig. 03: Cost Avoidance 2014

3.2. UGC-Infonet Digital Library Consortium

The UGC-Infonet Digital Library Consortium was launched by Dr. A. P. J. Abdul Kalam, the President of India during December 2003. The UGC-Infonet Digital Library Consortium provides current as well as archival access to more than 8,500+ core and peer-reviewed journals and 11 bibliographic databases from 28 publishers including commercial publishers, scholarly societies, university presses and aggregators in different disciplines. The programme was implemented in a phased manner. In the first phase that began in 2004, access to e-resources was provided to 50 universities who had Internet connectivity under the UGC-Infonet Connectivity programme. In the second phase, 50 more universities were added to the programme in the year 2005 as additional universities got Internet connectivity through UGC-Infonet Connectivity programme. So far, 212 member institutions including 14 National Law Schools/ Universities and 5 IUCs of the UGC, are being provided differential access to subscribed e-resources. These e-resources cover almost all subject disciplines including arts, humanities, social sciences, physical sciences, chemical sciences, life sciences, computer sciences, mathematics and statistics, etc. The programme is wholly funded by the UGC and executed by the INFLIBNET Centre. The Centre has also initiated Inter-Library Loan (ILL) through J-Gate Plus. The J-Gate Plus provides article-level access to all articles published in journals subscribed by the UGC-Infonet Digital Library Consortium as well as content in journals subscribed by 26 university libraries designated as ILL Centres of the INFLIBNET Centre. The Consortium has also launched its "Associate Membership Programme" wherein private universities and other research organizations are welcomed to join the Consortium for selected e-resources.

3.2.1. Current Status

The Consortium offers access to more than 8,500 peer reviewed electronic journals and 11 bibliographic databases from 28 major publishers and aggregators. The access of the journals includes current issues as well as 10 years back files (from 1997 onwards in most cases) and from volume 1 onwards in few cases (American Chemical Society, American Physical Society, Institute of Physics and JSTOR). The service is offered to 192 universities and 14 national law schools/universities as core members under different phases. The details of subscribed e-resources are given in table no 3.

Table no 3 E-Resources Subscribed under the UGC-Infonet Digital Library Consortium

Sl. No.	Electronic Resources	URL	No. of Journals	No. of Univ.	Phase
Full-text Resources					
1	American Chemical Society	http://www.pubs.acs.org/	55	123	I & II
2	American Institute of Physics@	http://journals.aip.org/	19	115	I & II

3	American Physical Society	http://publish.aps.org/browse.php	13	113	I & II
4	Annual Reviews	http://arjournals.annualreviews.org/	33	110	I & II
5	Blackwell-Wiley	http://www3.interscience.wiley.com/	908	137	I & II
6	Cambridge University Press	http://journals.cambridge.org/	224	130	I & II
7	Science Direct(10 Subject Collections)@	http://www.sciencedirect.com/	1036	80	I & II
8	Economic & Political Weekly	http://epw.in/	1	All	I, II & III
9	Emerald – Lib. Sci. Collection	http://www.emeraldinsight.com/	29	79	I & II
9	Emerald – Lib. Sci. Collection	http://www.emeraldinsight.com/	29	79	I & II
10	Institute of Physics	http://iopscience.iop.org/	46	121	I & II
11	JSTOR	http://www.jstor.org/	2585	153	I, II & III
12	Nature	http://www.nature.com/	1	63	I & II
13	Oxford University Press	http://www.oxfordjournals.org	202	135	I, II & III
14	Portland Press	http://www.portlandpress.com/pp/default.htm	8	58	I & II
15	Project Euclid	http://projecteuclid.org/	39	58	I & II
16	Project Muse	http://muse.jhu.edu/journals	492	107	I & II
17	Royal Society of Chemistry@	http://www.rsc.org/Publishing/Journals	29	110	I, II & III
18	SIAM Journals@	http://epubs.siam.org/	14	55	I
19	Springer Link	http://link.springer.com/	1438	193	I, II & III
20	Taylor & Francis	http://www.tandfonline.com/	1079	159	I, II & III
Bibliographic Databases					
21	JCCC	http://jgateplus.com/		ALL	I, II & III
22	MathSciNet	http://www.ams.org/mathscinet		63	I & II
23	ISID	http://isid.org.in/		ALL	I, II & III

24	SciFinderScholar	http://www.cas.org/		39	I & II
25	RSC Databases(6)	http://www.rsc.org/		110	I & II
26	Web of Science	http://www.webofknowledge.com/		100	I & II
Legal Databases					
27	HeinOnline	http://home.heinonline.org/		16	
28	Manupatra	http://www.manupatra.com/		18	
29	Westlaw India	http://www.westlawindia.com/		16	

3.2.2. Negotiation Committee

The Negotiation Committee is constituted as per the UGC Guidelines on UGC-Infonet Digital Library Consortium for negotiating the rates of subscription of e-resources.

3.2.3. Economics of UGC-Infonet Digital Library Consortium

Annual Increase in Rates of Subscription

In general, there is 10% to 15% annual increase in subscription rate of resources in print media. However, Consortium has negotiated the rates of increase in price of the e-resources and fixed the price cap within 3-5% annually.

3.2.4. Intensity of Usage: Cost Recovery

“Cost Recovery” and “Average cost of article per download” can be used effectively to judge cost effectiveness of an e-resource. These two factors reflect the intensity and frequency of usage of e-resources by member institutions in a Consortium.

The cost recovery factor is calculated by multiplying number of articles downloaded with the cost of a single article, if it is purchased directly from the publishers in the “pay-per-view model” or brought through ILL from any document delivery service. According to ALPSP survey, 78% of publishers surveyed offer pay-per-view or individual article purchase options. In the pay-per-view model, the cost of articles varies from publisher to publisher and average cost is \$30 per article. Assuming that if the electronic resources were not available through the Consortium, articles downloaded from these resources by the member institutions would have been sourced on inter-library loan / document delivery services at a cost of US \$ 15.00 per article (Average cost of article taken from a study conducted by the American Research Libraries).

Based on the no. of downloads from every resource, total amount of Rs. 13,693.82 million has been recovered as against the total cost incurred of Rs. 1,472.89 million with Rs. 12,220.93 million as the cost of articles downloaded in excess as shown in figure no.4

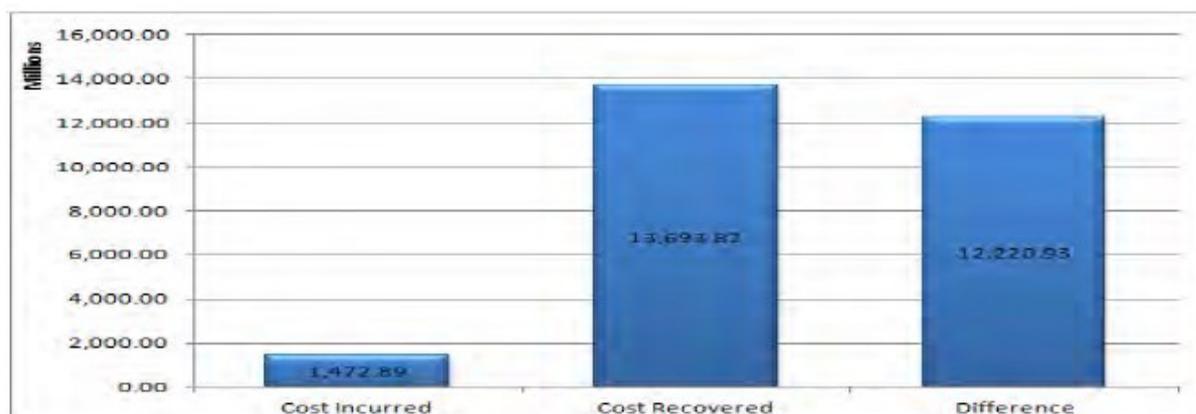


Fig. 04: Total Cost Recovery for the year 2014

3.3 E-Shodh Sindhu

The MHRD has constituted an Expert Committee on Library Consortium with an aim to survey the current scenario of Government-funded library consortia in India, to explore the possibilities of joint negotiations and collaborative services amongst various consortia and to recommend future course of action. The survey report on Govt.-funded library consortia carried out by the INFLIBNET Centre revealed that there is more than 65.71% duplication of resources amongst various Government-funded consortiums. Moreover, there is 14.81% duplication in the number of resources that are being subscribed by three MHRD-funded consortia and 33.33% among two MHRD-funded consortia, i.e. UGC-INFONET and INDEST-AICTE Consortium. Moreover, resources that are not common are being either subscribed by individual libraries or are being cross-subscribed through NLIST project. Considering these facts, the report submitted by the Expert Committee to the Ministry of HRD recommended that there would be a huge advantage in bringing the three MHRD-funded consortia under one umbrella.

Based on the recommendations of the Expert Committee, the MHRD formed e-Shodh Sindhu: Consortium for Higher Education Electronic Resources (CHEERs) merging three consortia initiatives, namely; UGC-INFONET Digital Library Consortium, NLIST and INDEST-AICTE Consortium. The e-Shodh Sindhu would 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.

This project is just started in INFLIBNET center. If it become successful it will come up as a new type of consortia which will come after the “manthan” of three another consortia.

4. Conclusion

To make successful the B2B marketing library have to change according to demand of time, improve its services, implement more and more ICT applications, jump in the

marketing its resources etc. These above mention programs running very successful in India because of its

1. Proper guidance
2. Its guidelines
3. Its resources
4. Its organizing body
5. Its fast and quick service
6. Its cost effectiveness
7. Its training and user awareness programs.
8. Its marketing etc.

Different kinds of organizations have different kind of need as a part of information society where the creation, distribution, use, integration and manipulation of information is a significant economic, political, and cultural activity [5] in future every institution which have some common goal need a common platform to create or distribute their information. And that time this B2B marketing concept will help them to achieve the great success to fulfil their goal.

References

- Liang, T.P., Lin, C.Y. and Chen, C.N. (2004), "Effects of electronic commerce models and industrial characteristics on firm performance", *Industrial Management & Data Systems*, Vol. 104 No. 7, pp. 538-45. [Link] [Infotrieve]
- <http://www.internetlivestats.com/internet-users/>
- <http://www.marketing-schools.org/types-of-marketing/b2b-marketing.html>
- <http://www.investopedia.com/terms/b/btob.asp>
- https://en.wikipedia.org/wiki/Information_society
- Arora, J., and K. Trivedi. "UGC-INFONET Digital Library Consortium: Present Services and Future Endeavours." *DESIDOC Journal of Library & Information Technology* 30.2 (2010): 15-25. Print.