

Collection Development of E-resources in University Libraries of West Bengal: A Comparative Study

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ABSTRACT

Collection Development means planning for a systematic and organized erection of general collection. There are two forms for collection development in academic libraries, centralized and decentralized systems. In centralized system the full responsibility of library is of the Central Library and on the other hand in decentralized system the responsibilities of library systems are divided into the departmental academic Libraries. **Objectives:** To reveal the present status of e-Resources in the university libraries and to recommend practicable guidelines for improved collection development programme. **Methodology:** This research was conducted to obtain an overview of the collections development of e-resources in the Jadavpur University Central Library and Burdwan University Central Library. Both of the two University Libraries are depends on Decentralized Library System. But the collection of e-resources of two Central Libraries is very strong and self dependent. **Recommendation:** Collection development must be decide based on current financial availability and prompt information of users and try to implement the same.

Keywords: E-Resources; Library Collections; Collection Development Policy; Academic Libraries; Digital Library Consortium.

1. INTRODUCTION

This study aimed to measure the principles, policies and procedures governing the collections development of the e-resources of Jadavpur University Central Library (J.U.) and Burdwan University Central Library (B.U.), India. Also know the total budget of these libraries to determine the budget and aspects of resource sharing.

2. OBJECTIVES OF THE STUDY

The proposed study focuses on the policies and practices of development and management of e-Resources in University Libraries and examines the various criteria for selection and evaluation of e-Resources.

1. To know the affecting and hindering factors to the collection development of books these university libraries.
2. To reveal the present status of e-Resources in the university libraries.

3. To find out collection development policies of e-Resources adopted by the university libraries and evaluate such policies and practices.
4. To explore the current practices of selection and evaluation of e-Resources.
5. To recommend practicable guidelines for improved collection development programme.
6. To study the emerging new information environment that affects the collection development activities in university libraries.
7. To make an overview of the existing collection development policies and strategies and their application to Indian University library environment.
8. To suggest policies for collection development suitable to Indian University Information System.

3. METHODOLOGY

To reach the objective of this study and for convenience a sample of University Libraries were covered for this study. For collecting data, methodological terms for an applied

questionnaire consisting of questions relating to: library budget, library resources, selection tools, subscriptions to electronic journals, library automation.

Data collected in above manner are analyzed and presented in separate tables.

4. LIMITATION

The study will be limited into the Central Library of Jadavpur University and Central University of Burdwan University. There are many Government University are located in West Bengal. Due to lack of time I do not collect all information from all the university libraries in West Bengal. Some staffs in the university libraries do not provide their appropriate information due to the purpose of the research works. relevant points may be avoided due to inexperience on the part.

5. DATA ANALYSIS AND INTERPRETATION

To evaluate the collections of the Central Library (JU) and the Central Library (BU), a questionnaire was prepared for data collect. The data collected focused on the follows:

5.1. Collection of Electronic Resources

Jadavpur University			Burdwan University		
Period			Period		
2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
12,712	23,606	79,856	5,236	5,236	7,622

Table-1: Total collection of libraries in the last three periods.

Table-1 shown that Burdwan University have more than less amount of e-resource collection gradually in last three period then Jadavpur University. It is shown from the above table

that Jadavpur University (J.U.) surpassed 7476 e-resources of the total numbers of e- resources in Burdwan University (B.U.) in the year 2010-11 after that in 2011-12 the difference between number of e-resource collection in J.U. and B.U. increased in 18370. In the present year J.U. surpassed 72234 e-resources of the total numbers of e- resources in Burdwan University (B.U.)

The table-2 presents the total numbers of microfilms CDs, e-journals, e-books, e-databases, e-thesis and dissertation, question papers of Jadavpur University Central Library and Central Library of The University of Burdwan in last three years. In the year 2010 to 2013 the total numbers of microfilms are 500 in J.U. It didn't increase because at present J.U. does not buy any others microfilms. On the other hand in B.U. they don't have any microfilms. In between 2010-11 to 2011-12 the total number of CDs were 1187 in B.U. but now it is reduced and in 2012-13 the numbers of CDs are 1,111. But in the same year the numbers of CDs are 1655 in J.U. which is 545 more than B.U.

The total numbers of e-databases were 17 in J.U. in the period of 2010-11 to 2011-12 within the same period the total numbers of e-databases in B.U. was only 1 which was much lower in number. But in the period of 2012-13 the total numbers of e-databases is increased by 30 in J.U. and B.U. it is also increased by 9 which shows that in J.U. the total numbers of e-databases is 21 more than B.U.

Sl. No.	Name	Jadavpur University			Burdwan University		
		Period			Period		
		2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
1	Microfilms	500	500	500	-	-	-
2	CDs	-	-	1655	1187	1187	1111
3	e-Databases	17	17	30	1	1	9
4	e-Journals	7208	10000	11362	4048	4048	6502
5	e-Books	815	10000	10246	-	-	-
6	e-Thesis &	3735	2681	22218	-	-	-

	Dissertation(Master Dissertation)						
7	Question Paper	437	408	545	-	-	-
8	Floppies	-	-	-	-	-	-
9	Microfiches	-	-	-	-	-	-

Table-2 : Details of e- Resources collection in the last three periods.

The total numbers of e-journals in J.U. were 316 more than B.U. In the period of 2010-11, in 2011-12 which was 5952 and 2012-13 it was 4860.

Previous three years the total numbers of e-books in the J.U. were 815, 10,000 and 11362 respectively. On the other hand the total numbers of e-books in B.U. was much lower in numbers.

The records of e-dissertation (master dissertation) and question papers of previous year J.U. has the opportunity of conservation by electronic or digital form but in B.U. they have not.

5.2. Selection of Study Materials

Selection of study materials is more important for collection development of e-resources. The right materials help to provide better service to the library users.

Jadavpur University Central Library (J.U.)	Burdwan University Central Library (B.U.)
Librarians	Librarians
Teachers' recommendation	Teachers' recommendation
Students' recommendation	Students' recommendation

Table-3: Selection of study materials.

About the selection of study materials, the data regarding the Jadavpur University Central Library (J.U.) and the Burdwan University Central Library (B.U.) are shown in Table-3. The analysis reveals that in both the libraries selection of study materials is done by librarians, teachers' and students' recommendation.

Selection Tools Used		
Items	Jadavpur University Central Library (J.U.)	Burdwan University Central Library (B.U.)
1	Bibliographic tools	Bibliographic tools
2	Reviews in journals	Reviews in journals
3	Reviews in newspapers	-
4	Publisher's catalogue	Publisher's catalogue

Table-4 : Selection Tools Used

The data collected about the tools used for selection of study materials in the two libraries is shown in Table- 4. Data analysis shows that the selection tools, in both libraries are the same: bibliographic tools and journals reviews. In the case of Jadavpur University Central Library (J.U.) is also taken into consideration newspapers reviews.

5.3. E-resource section:

Sl. No.	Item	University	
		J.U.	B.U.
1	Separate e-resource section	Yes	Yes
2	Computer	60	40
3	Printer(Laser Printer)	6	5
4	Scanner	5	4
5	Bar coding instrument	1	1
6	Digital Camera	2	1
7	Web Camera	2	1
8	Software(Digital Repository Software)	DSpace	-

Table-5 : e-Resource section

Table-5 is showing that both library J.U. and B.U. they have separate e-resource section. But the number of computers, printers and scanners J.U. has more than B.U. and also J.U. has separate repository software DSpace which is not used in B.U.

The processor of all computers is Pentium IV in J.U. But B.U. use Pentium IV and dual core processor. Out of 6 printers in J.U. 4 laser jet printer and 2 DMP printers. On the other hand B.U. used 5 laser jet printer of 1000 series.

5.3.1 Device engaged for e-Resources in University Libraries

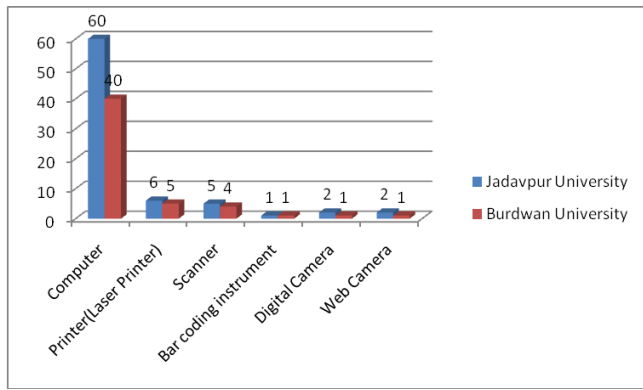


Chart 1: Details of e- Resources collection in the last three periods.

It is shown from the above table that Jadavpur University (J.U.) surpassed 20

Computers of the total numbers of computers engaged in e-resource section in Burdwan University (B.U.). All the computer in the two libraries are internet-enable.

5.3.2 Additional Services:

With the introduction of digital library, a number of important services other than e-journals, e-books accessing has already been implemented, e.g.

- Archival of rare text documents.
- Archival of Ph. D theses abstracts.
- Question papers of JU since 2005.

5.4. Library Staff:

Sl. No.	No. of staff	University	
		J.U.	B.U.
1	No. of professionals with computer knowledge	5	4
2	No. of professionals without computer knowledge	-	1
3	No. of non-professionals	1	1

Table-6: Staff working in e-resource section

It is shown from the table-6 that Jadavpur University Library and Burdwan University Library have insufficient number of professional and non-professional staff. The two libraries have only one professional without computer knowledge and only one non-professionals staff. The library staffing level is far below with user needs and is in no way related to the sizes of e-resource stocks. As a result of the lack of competent personnel in the profession the two universities libraries are obstructed to user service.

5.5. Mode of e-resources

Sl. No.	Item	J.U.	B.U.
1	Internet via their website	Yes	Yes
2	CD-ROM Network	-	Yes
3	Commercial Online service Vendors	Yes	-
4	Free online web resource	Yes	Yes

Table-7: Mode of e-Resources: Providing the e-Resource services through

It is shown from the table-7 that the both University Libraries (J.U. and B.U.) are also having internet facilities through their website. Burdwan University Central Libraries gave CD-ROM Network but Jadavpur University Central Libraries have not. On the other hand J.U. Central Library has commercial online service Vendor but B.U. Central Library has not any commercial online service Vendor.

Sl. No	Item	J.U.	B.U.
1	Full text	Yes	Yes
2	Abstract	Yes	Yes
3	Bibliographic	Yes	Yes
4	Numeric	-	-

Table-8 : Types of e-Resources subscribing for e-Resource section

The Central Library of both J.U. and B.U. are subscribing e-resources such as full text, Abstract and Bibliographic e-resources.

5.6. Networking

To build a better collection of e-resource and to provide better service for the user network system within the library and outside of the library plays a vital role.

Sl. No	Item	J.U.	B.U.
1	LAN Facilities	BSNL	BSNL
2	Internet facilities	Yes	Yes
3	Mode of Connectivity	Leased Line	Leased Line
4	Bandwidth	4 mbps	4 mbps

Table-9 : Networking

Table-9 presents the networking system of J.U. and B.U. Both the libraries have LAN facility. Both library uses BSNL line for LAN. Both university libraries has internet facilities and mode of connectivity of both library leased line for searching internet but the speed of internet searching is 4mbps in J.U.

and B.U. while the total speed of Jadavpur University Library is 70mbps.

5.7. Storage medium

Sl. No	Storage Medium	J.U.	B.U.
1	CD ROM	Yes	Yes
2	PEN DRIVE	Yes	Yes
3	CTD	-	-
4	DVD	Yes	Yes
5	ZIP Disk	-	-
6	DAT	-	-
7	Others	Memory card	-

Table-10 : Storage Medium those are used by the users in e-Resource section

Jadavpur University Central Library and Burdwan University Central Library provides CD-ROMs, pen-drive, DVDs and memory card to their users. They also have E-mail facility in E-Resource section.

5.8. Ugc-infonet programme

Sl. No	UGC-INFONET Programme	J.U.	B.U.
1	member of UGC-INFONET Programme	Yes	Yes
2	Date of initiation	-	2001
3	No. of e-Resources	-	6511

Table-11: Status of UGC-INFONET Programme

Sl. No	Name of Consortia	J.U.			B.U.		
		Starting Year	Yearly subscription	No. of e-journals	Starting Year	Yearly subscription	No. of e-journals
1	INDEST	2004	2000/-	3000	-	-	-
2	DELNET	2003	11500/-	-	-	-	-
3	EDUNET	-	-	-	-	-	-

Table-12: Connectivity & Usage of National/International Consortia other than UGC INFONET

The subscriptions to electronic journals are presented in table-11 and table-12. It was observed that Jadavpur University Central Library (J.U.) subscriptions are made through the joint venture between Indian National Digital Library in Engineering Sciences and Technology (INDEST), the Developing Library Network(DELNET) , the University Grants Committee (UGC) and Information and Library Network (INFLIBNET) whose the consortium is called UGC-Infonet E-Journals Consortium; Science Direct by Elsevier company; the Open J-Gate by Informatics Ltd. (India) company, which is an electronic portal of open access. The Central Library (B.U.) only made the subscriptions by University Grants Committee (UGC) and Information and Library Network (INFLIBNET), Science Direct and Open J-

Gate. The Central Library (B.U.) does not purchase any other e-journals or e-databases through any other national or international consortium such as INDEST, DELNET for the lack of fund.

During the last three years the two libraries shared their information resources. The Jadavpur University Central Library (J.U.) has made resource sharing agreement with all libraries-member of INFLIBNET, Developing Library Network (DELNET) and INDEST while the Central Library (B.U.) has made resource sharing agreement only with libraries-member of INFLIBNET.

5.9. Criteria Used For Selecting Of E-Resources.

Sl. No	Criteria used for selecting of e-Resources	J.U.	B.U.
1	Quantity to meet user need	Yes	Yes
2	Subject relevance	-	Yes
3	Cost effectiveness	Yes	-
4	Authenticity of information	Yes	-
5	After sale maintenance	Yes	-
6	Currency of information	Yes	-
7	Back Issues Facility	-	-
8	Distributed access	Yes	-
9	Period of Access	Yes	-
10	Added Value	-	-
11	Ease of accessibility	Yes	Yes
12	Legal issues	Yes	-
13	Preservation	-	-
14	Vendor reliability	Yes	-
15	User recommendation	Yes	-
16	Recommendation of Faculty members, Research scholars and students	Yes	-

Table-13 : Criteria used for selecting of e-Resources

Table-13 present the Criteria used for selecting of e-Resources in Jadavpur University Central Library (J.U.) and Burdwan University Central Library (B.U.). Jadavpur University Central Library (J.U.) used e-resource selecting criteria more than Burdwan University Central Library (B.U.). Because Burdwan University never purchased any e-resources other

than UGC INFONET. So they only used those e-resources which is provide by UGC INFONET.

5.9.1. Full-text Electronic Resources

Full-text electronic resources contain complete articles along with their bibliographic details. All full-text resources subscribed by the Consortium contain electronic journals.

Sl. No	Full text resources	No. of e-resources	
		J.U.	B.U.
1	Emerald	29	29
2	Citation Index	-	-
3	Elsevier's Science Direct	1036	-
4	Bio Med Net Reviews	295	-
5	Project Euclid	35	-
6	Project Muse Journals	493	389
7	American Chemical Society	37	29
8	Annual Reviews	33	33
9	American Physical Society	10	10
10	American Institute of Physics	18	18
11	Biological Abstracts	-	-
12	Cambridge University Press Journals	224	-
13	Institute of Physics	46	-
14	JSTOR	2585	729
15	Nature	1	1
16	Royal Society of Chemistry	6	26
17	Oxford University Press	206	202
18	Taylor & Francis	1079	1076
19	Springer Viragos Link	1763	1236
20	ABI/Inform Complete	-	-
21	ACM Digital Library	-	-
22	ASCE Journals	34	-
23	ASME Journals (+A M R)	26	-

Table-14 : e-Resources those are accessed by the users among the full text resources in libraries

Table-14 present the total numbers and details of full text e-resources those are subscribes in the two university central library. As shows in above chart Jadavpur university library is subscribes 4,178 e-resources more than Burdwan university central library.

5.9.2. Bibliographic Databases

Bibliographic databases contain references to articles published in journals, conference proceedings or chapters in books. Most bibliographic databases contain abstracts of the articles along with links to their full-text.

As shows in table-15 that Jadavpur university central library subscribes 5 bibliographic databases for user while Burdwan university central library subscribes only 2 bibliographic databases for user.

Sl. No	Bibliographic resources	Universities	
		J.U.	B.U.
1	COMPENDEX on EI Village	-	-
2	INSPEC on EI Village	-	-
3	EBSCO	Yes	-
4	MathSciNet	Yes	-
5	SciFinder Scholar	Yes	-
6	Web of Science	Yes	-
7	J-Gate Custom Content for Consortia (JCCC)	Yes	Yes
8	Institute for Studies in Industrial Development	-	Yes

Table-15 : e-Resources those are accessed by the users among the bibliographic resources in two libraries

5.9.3. Criteria used for evaluate the e-Resources

Sl. No	Criteria used for evaluate the e-Resources	J.U.	B.U.
1	Trial before use	Yes	-
2	Vendor's Performance	-	-
3	Product review by expert	Yes	Yes
4	Cost	Yes	-
5	Coverage	Yes	-
6	Scope	Yes	-
7	Limitations	-	-
8	Time lag	-	-
9	Single Users/Networking	Yes	Yes
10	Evaluation of content & performing under existing environment	Yes	-
11	Access facility	Yes	Yes
12	users' opinion	Yes	Yes

Table-16: Evaluate the E-Resources before Purchase

As shows in table-16 Jadavpur university library trial the e-resources before purchased or subscribes. Review the product by experts, justified cost, check subject coverage, scope of subject coverage, check whether e-resources can use by single user or in network environment, check the content to performing under existing environment and evaluation, checking access facility and also take the users opinion for evaluate the e-resource before purchasing. While Burdwan university central library Review the product by experts, check whether e-resources can use by single user or in network environment, cheaking access facility and also take the users opinion for evaluate the e-resource before subscribe the e-resources.

5.9.4. Elements of Collection Development Policies

Sl. No.	Elements of Collection Development Policies	J.U.	B.U.
1	Short and Long Term Objectives	Yes	Yes
2	Selection Responsibility	Yes	Yes
3	Need Assessment & Users requirement	Yes	Yes
4	Selection responsibility	-	-
5	Levels of Collections	-	-
6	Selection Criteria	Yes	Yes
7	Acquisition Procedures	Yes	-
8	Security, Authentication	Yes	Yes
9	Coordination of Libraries Resources	-	-
10	Balance Between Print & e-Collections	Yes	-
11	University Website	Yes	Yes
12	Own Library Website	Yes	Yes
13	Preserve e-resources	-	-

Table-17: Collection Development Policy for e-Resource

5.10. Collection Development Policy for e-Resources

The two university libraries have not framed collection development policy. But they used some Elements of Collection Development Policies such as Short and Long Term Objectives, Selection Responsibility, Need Assessment & Users requirement, Selection Criteria, Acquisition Procedures, Security, Authentication, University. Website, Own Library Website etc.

5.11. Finance

All public universities are funded by the University Grants Commission (UGC) and their libraries are financed by their parent organizations. Low financial support is a major factor hindering university library development in West Bengal.

There are two major reasons for poor library funding in West Bengal namely:

- The poor state of the economy; and
- Low priority given to libraries by the government.

The Librarian of university libraries applies mostly the line-by-line budgeting method. There are variations in financial support between universities even within the same state. Different university libraries get different levels of financial support. For example in Jadavpur University Central Library, the present allocation of funds for development of collections of e-resources is much higher in the case of The University of Burdwan Central Library.

The grants allocated to libraries are mainly for salaries, acquisition of books, journal subscriptions, contingency, reprography, and other related miscellaneous expenditure. There is no current allocation of budget for development and upgrading of information technology resources. Jadavpur University of Central library imposes a nominal fee for users other than university students who require access to the library reading facilities. Jadavpur University has introduced a library development fee that is paid along with admission fees for new students. Students of Jadavpur University in the state of West Bengal pay an admission fee in the range of 50.00. This fee includes a refundable library security payment.

Jadavpur University			Burdwan University		
Period			Period		
2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
13,071,186	11,908,303	13,200,000	500,000	500,000	15,00,000

Table-18: Total Budget Allocated For Libraries in The Last Three Periods.

5.12. Libraries Budgets for e-Resources

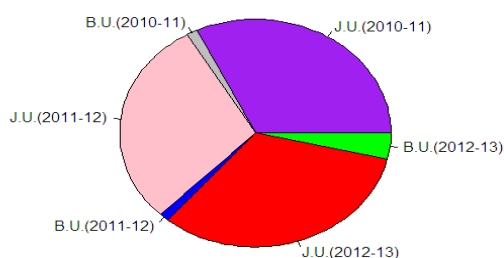


Chart 2: Libraries Budgets for e-Resources

This chart shows that Burdwan University have insufficient budget to manage and to build a huge amount of collection of e-resources but Jadavpur university have sufficient balance for e-resource collection development.

6. FINDING OF THE RESEARCH

1. Insufficient fund for e-resource collection development in Burdwan University Central Library rather than Jadavpur University Library. There is no current allocation of budget for development and upgrading of e-resources.
2. There are insufficient males & females staffs working in the e-resource section in libraries of Jadavpur University library and also Burdwan University Library.
3. Burdwan university library had the low number of e-resources then Jadavpur University Central Library.
4. Only Jadavpur University Central Library had E-books, e-Thesis & Dissertation (Master Dissertation), Microfilms and Question Paper facility.
5. The Central Library (B.U.) does not purchase any other e-journals or e-databases through any other national or international consortium such as INDEST, DELNET for the lack of fund.
6. The two university libraries have not framed collection development policy of e-resource.

7. SUGGESTIONS OF THE RESEARCH

Apart from the above, following recommendation are provided for further improvement of university libraries.

1. According to the view of late Dr. S.R.Ranganathan pre-father of Indian library and Information Science there should be average 10% to 15% budget allocation from the university to the library to fill full the demand to users and development of library.
2. Only the library of Jadavpur University is getting the aid donation from the person and organizations (e.g. UGC) among the two Universities so the University of Burdwan should approach for the same.
3. According to the budget allocation of the West Bengal State financial allocation available every year, by the state government and as per five years plane by the U.G.C. This allocation should be made such a way that the shortage of

money that seen in the library for the subscription of e-journals can be reduced.

4. Collection development must be decide based on current financial availability and prompt information of users and try to implement the same.

5. For the collection development capacity of university library there should be Requirements of Librarians and Conclusion should be forwarded to the official of university.

6. There should be following of the member of library committee officials, Deans and librarians to see that the financial aids provided by U.G.C. use effectively.

7. To decide the collection capacity development features of two Universities considered in the research prompt action should be taken based on numerical information available.

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