

# Use of IT in University of Agricultural Science Libraries of Karnataka: A Comparative Study

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## Abstract

The paper highlights the use of hardware and software facilities in University of Agricultural Science Libraries in Karnataka. It also highlights the access of networks, information services and barriers in information technology (IT) applications. A survey conducted on two agricultural universities libraries in Karnataka, namely University of Agricultural Science Library, Dharwar and University of Agricultural Science Library, Bangalore found that none of the University libraries under the study is having databases and full implementation of IT applications in their libraries.

## 1. INTRODUCTION

With the recognition of the impact of information technology (IT) in library and information science (LIS) in providing faster access to the global information, the libraries in academic institutions are much interacting with IT. However, it has not developed its roots well in the developing countries like India. Particularly, in Karnataka, it is still in developing process in agricultural universities. To collect the required data for this study, a survey was conducted on two agricultural universities libraries in Karnataka, namely, University of Agricultural Science Library (UASL), Dharwar and University of Agricultural Science Library (UASL), Bangalore. The analyses of the survey are provided here.

## 2. ANALYSES

### 2.1 Collection

Major share of the collections of the agricultural university libraries in Karnataka have been in the form of books. On the other hand, journals and non-book materials have occupied the second and third position respectively. Only UASL, Bangalore, is having audio/visual material (Table 1).

### 2.2 Computer Facilities

#### 2.2.1 Hardware

To derive the benefits arising through the applications of IT, most of the libraries and information centres have been establishing varied types of computers and communication

**Table 1. Reading materials available in University of Agriculture Science Library (UASL)**

Description	UASL, Dharwar	UASL, Bangalore	Total
Books	63,699	1,65,189	2,28,888
Journal subscription	556	573	1129
Audio/visual	Nil	235	235

UASL = University of Agricultural Science Library

technology products depending on their requirements to respond quickly and to disseminate the information to the users. The list of hardware installed at the agricultural university libraries of Karnataka is provided in the Table 2.

It can be ascertained from Table 2 that both the agricultural university libraries of Karnataka under the study have installed microcomputers having floppy drives and CD-ROM drives. No libraries under the study have local area networks (LAN) facilities and online access facilities.

Hardware	UASL, Dharwar		UASL, Bangalore	
	Yes	No	Yes	No
<b>Computer System</b>				
Mainframe computer		✓		✓
Minicomputer		✓		✓
Microcomputer	2		✓	
<b>Drives</b>				
Floppy drives	✓		✓	
CD-drives	✓		✓	
DVD-drives		✓		✓
<b>Printers</b>				
Dot matrix	1		✓	
Ink Jet		✓		✓
Laser Jet	1		✓	
Barcode printer		✓		✓
<b>Projectors</b>				
Overhead projector		✓		✓
Multimedia projector		✓		✓
Liquid crystal display		✓		✓

### 2.2.2 Software

Software is always considered as blood of the hardware systems, which brings the equipment into real use that can not be done by hardware alone. To bring the hardware

establishment into activation, proper software facilities are required by the university libraries to serve up-to-date information to the clientele. Table 3 provides the software used by the two libraries. It can be noted that none of the libraries is having library software packages. These libraries are having DOS and Windows as operating systems. For development of databases for their library activities, certainly they require library software packages, either CDS/ISIS or LIBSYS or others to satisfy the information needs of academicians, which is not available at present in these libraries.

Table 4 reveals that none of the libraries has

Software	UASL, Dharwar		UASL, Bangalore	
	Yes	No	Yes	No
<b>Operating System</b>				
DOS	✓		✓	
Windows	✓		✓	
Windows-NT		✓		✓
Unix		✓		✓
Others		✓		
<b>Software Packages</b>				
LIBSYS		✓		✓
CDS/ISIS		✓		✓
SOUL		✓		✓
Techlib Plus		✓		✓
Sanjay		✓		✓
In-house prepared		✓		✓

automated cataloguing, acquisitions, circulation, serial control and other services of their library.

### 2.3 Library Services

The agricultural university libraries are considered as the service agencies to the academic and scientific community as well as to the farmers. The faculty, scholars, students and the agriculturists have been served with different services in their libraries through manual and computerised information retrieval

Library Sections	UASL Dharwar		UASL Bangalore	
	Yes	No	Yes	No
	Cataloguing and indexing		✓	
Acquisition		✓		✓
Circulation		✓		✓
Periodical control		✓		✓
Reference		✓		✓
OPAC		✓		✓

system. Table 5 provides the services offered by the two libraries under the study.

Table 5 reveals that UASL, Bangalore, is offering automated current awareness service (CAS) and CD-ROM search services to their clientele. On the other hand, UASL, Dharwar, is providing CD-Net, CD-ROM and Internet browsing services to their users. None of the libraries under the study is offering e-mail services, which is an essential feature now-a-days.

### 2.3.1 In-house Database

Table 6 reveals that UASL, Bangalore, is having in-house database as regards to current periodicals and theses and dissertations. Whereas, UASL, Dharwar, has built in-house database for books only.

## 2.4 Network Access

Table 7 provides the information about the names of networks at national and international to which the University libraries have access to. It can be noted from the Table 6 that, only UASL, Dharwar, has access to agriculture research information system (ARIS) and Internet, whereas UASL, Bangalore does not have any access to networks as such.

## 2.5 Administrative Activities

Table 8 highlights that none of the university libraries under the study has used computer and communication technologies for their administrative activities.

Library Services	UASL, Dharwar		UASL, Bangalore	
	Yes	No	Yes	No
	Automated lending		✓	
Automated CAS		✓	✓	
Automated translating		✓		✓
E-mail		✓		✓
Telex		✓		✓
Fax		✓		✓
CD-Net	✓			✓
Dial up service		✓		✓
Technical communication		✓		✓
Electronic Bulletin Board System		✓		✓
CD-ROM search	✓		✓	
On-line search		✓		✓
Internet browsing	✓			✓
Web-based OPAC		✓		✓
TELNET		✓		✓
Voice chatting		✓		✓

Database	UASL, Dharwar		UASL, Bangalore	
	Yes	No	Yes	No
	Current periodicals		✓	✓
Back volumes		✓		✓
Thesis and dissertations		✓	✓	
Books	✓			✓

## 2.6 Barriers for IT Application

Table 9 provides a clear picture as regards to barriers for IT application in their libraries. It reveals that both the university libraries are of the same opinion that insufficient funds,

Network	UASL, Dharwar		UASL, Bangalore	
	Yes	No	Yes	No
	<b>NATIONAL</b>			
INFLIBNET		✓		✓
ERNET		✓		✓
NICNET		✓		✓
I - NET		✓		✓
INDONET		✓		✓
SIRNET		✓		✓
ARIS	✓			✓
<b>INTERNATIONAL</b>				
INTERNET	✓			✓
DIALOG		✓		✓
JANET		✓		✓
BIOSIS		✓		✓
Chemical Abstract		✓		✓

inadequate trained staff in IT applications, lack of support from the authorities, lack of IT knowledge on the part of users and annual maintenance cost of IT equipment and products affect the collection development and are the barriers for IT application.

### 2.7 Impact of IT Application

Table 10 presents the impact of IT applications on libraries. A total of six variables have been identified and librarians are asked to give their opinion on these variables. Both the librarians expressed that the variables like improvement in the quality of library service, and efficiency of the library can be done when it is used in the libraries. It makes integration within the organisation, improves the communication, helps in effective resource sharing, and attracts the library users.

	UASL, Dharwar		UASL, Bangalore	
	Yes	No	Yes	No
	Library administration		✓	
Management information system		✓		✓
Accounting		✓		✓
Budget control		✓		✓

### 3. SUGGESTIONS

Based on the observation of the study, a few points are suggested to improve the IT application to provide computerised information services to the users in the agricultural university libraries in Karnataka.

- ✦ Audio-visual and non-print collections are in very low proportion. Hence, the UGC which is a major funding agency, should insist the libraries to develop such collection by allotting special grants for the same.
- ✦ Though the agricultural university libraries of Karnataka have hardware and software facilities to some extent, but the results are not reaching the users community to the expected extent. This might be due to lack of trained manpower and unawareness of the INFLIBNET programmes. Now-a-days, INFLIBNET is providing a substantial grant to university libraries for their automation. To overcome this, librarians must approach INFLIBNET for grants for their library automation, and the library personnel at all level should be trained in IT applications.

### 4. CONCLUSION

Though the programmes have been meant for serving the information needs of academicians, the outputs have not yet reached the academic community due to non-access of the INFLIBNET programmes. Apart from this, there are many network facilities available at national and International levels, which are not

**Table 9. Barriers for application of information technology**

Barriers for IT Application	UASL, Dharwar		UASL, Bangalore	
	Yes	No	Yes	No
Insufficient funds	✓		✓	
Library staff members are not interested in IT adoption in the library		✓		✓
Inadequate trained staff in IT application	✓		✓	
Lack of co-ordination among library staff	✓			✓
Lack of initiative on the part of the library staff		✓		✓
No support from the authority for IT applications in the library	✓		✓	
Lack of IT knowledge on the part of users	✓		✓	
Lack of interest on the part of users				✓
Lack of scope for library professionals due to IT applications				✓
The library staff is not interested in learning IT application in the library due to poor salary				✓
The library professionals are not deputed in learning IT application in the library by higher authorities	✓			✓
Lack of professional recognition by the authorities of the library				✓
A fear of modern IT				✓
IT often disturbs the routine work of the library				✓
IT applications will spoil the image of the library				✓
IT application allows less control over the library				✓
Utilisation of IT applications will increase the number of support staff				✓
IT affects regular budgeting provision			✓	
IT takes major share from the library				✓
Annual maintenance cost of IT products affects the collection development	✓		✓	
Operational cost is exceeding year by year			✓	
Higher salaries for a trained staff also affecting the collection development		✓		✓

accessed by the libraries under study. This is mainly due to the lack of adequate training and financial assistance. To overcome this, the librarians should approach the university authorities and train the library personnel on IT application. The university librarians should also

approach the funding agencies like INFLIBNET and Indian Council of Agricultural Research (ICAR) for their library automation and provide IT-based information services to their clients.

Table 10. Impact of information technology				
Impact of IT applications	UASL, Dharwar		UASL, Bangalore	
	Yes	No	Yes	No
IT applications improve the quality of library services	✓		✓	
IT improves the facility of the library	✓		✓	
Use of IT enhances the knowledge and experience	✓		✓	
IT makes integration within the organisations	✓		✓	
Use of IT is essential to improve the communication facilities	✓		✓	
It helps to attract the library users	✓		✓	
Others (Please specify)				

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