

Automation of Veterinary College Libraries in India: Problem and Prospectus

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Abstract

This paper attempts to discuss the concept of automation, automation status of Veterinary College Libraries in India. The study has also discussed about the veterinary colleges, its objectives, and status of automation, problems and prospectus. Attempt has been made to analyze the various factors that directly or indirectly affect the progress of library automation such as management issues, ICT infrastructure, skills of staff. Concludes that in this competitive environment and to meet the various needs of users, there is a need for adoption of library automation and extend ICT based services to the users in Veterinary College Libraries.

Keywords: Library Automation, Veterinary College Libraries

1. INTRODUCTION

We live in an information age, and libraries are expected to use Information and Communication Technologies (ICT) to provide information more expeditiously and exhaustively than before to veterinary scientists. Computerization of library “housekeeping” operations is an important activity in this context. “Automation,” when used in a library or similar environment, refers to the computerization or mechanization of activities [1].

Library automation which started in late 70s in few special libraries has now reached most of the university and college libraries. It is yet to take off in college libraries in India owing to various problems. Now we talk about digital libraries and e-journals. We have come a long way. But we are a country where bullock cart and cars are seen on the same road so blocking the fast moving traffic and those bullock carts restrict the speed of the cars to its own speed. To overcome this problem there are only two ways. First, replace the bullock cart with a car, and second, bypass the bullock cart and leave it behind. The state of library automation in our university libraries is more or less the same. We have the libraries like, IVRI, NDRI, ICAR, TANVASU Chennai and etc, libraries, which are highly automated and also totally manual libraries which are really restricting the speed of academic and research in the country.

This paper tries to identify the barriers, analyze the convenient steps in automating the veterinary college library and the technology available.

2. SIGNIFICANCE OF THE STUDY

In the developing country like India animal husbandry plays a vital role in rural economy. It supplements household income especially for the landless, small and marginal farmers. It also provides subsidiary occupation in semi urban areas and for people living in hilly, tribal and draught-prone areas where crop output may not sustain the family. India is endowed with the largest livestock population in the world. As per livestock Census [2], the country has about 18.5 crore cattle and 9.8 crore buffaloes which accounts for 14% of the cattle population and 57% of the worlds buffalo population. The contribution of livestock to total GDP has remained steady between 4.8 and 6.2% during the last two decades; and its contribution to agriculture GDP has gone up from 13.8% in 1981 to 23.8% in 2002-2003 [2].

Veterinary education is the most potential instrument for the social change and development. India stands number one in milk production and fourth in poultry production in the global market. Animal husbandry as compared other agricultural products has several advantages, such as relative stability in yield and price, regular cash flow throughout the year, utilization of family

labour, use of crop residues as cattle feed has helped in laying a stable foundation for rural development. India ranks first in the world in milk production which accounts for 15% of the world's total milk production. Country's milk output has not only placed the dairy industry first in the world, but also represents sustained growth in the availability of milk and milk products. Milk is now the largest contributor to the National GDP contributing about 5.3% to India's agricultural GDP even larger than rice and wheat combined. The value of output from milk at current prices during 2006 - 2007 has been over Rs. 144386 crore and contributes to nearly 70% of total livestock sector output. As many as 120 million rural families are engaged in animal husbandry [3].

3. OBJECTIVES OF THE STUDY

The objectives of the study are

- i To find out how many libraries have undertaken automation.
- ii To find out which areas are automated.
- iii To find out whether sufficient staff is available to carry out automation and
- iv To find out the barriers to automation faced by libraries.

4. METHODOLOGY

Survey method has been employed to elicit information from the Veterinary College Libraries in India which has been imparting veterinary and animal science education. The libraries attached to their colleges cater to the information needs of the undergraduates, postgraduates, scientists and faculty members in the field of veterinary and animal husbandry.

The questionnaire and interview schedule has been pre-tested by conducting a pilot study at Madras Veterinary College, Chennai and based on their feedback and valuable input, i.e. questionnaire and Interview schedule have been finalized. The population of the study consists of Veterinary College Libraries in India. There are 43 veterinary colleges in the country. Out of 43 Veterinary Colleges, 39 Veterinary Colleges located in different states of India responded with a response rate of 90.6%.

5. STATUS OF LIBRARY AUTOMATION IN VETERINARY COLLEGE LIBRARIES

This is an age of information and there is an increasing awareness about the importance of information. At this juncture, the researchers and scientists are finding it difficult to keep pace with the growing information. They look forward for assistance towards the library staff in location and retrieval of information. The library staffs on the other hand, are finding it impossible to organize the information manually. This crisis has resulted in the advent of technology in the libraries. The libraries of modern days are going in for computerization, so that information can be handled efficiently.

The advent of microcomputers and availability of wide range of technological gadgets in library applications have opened up many possibilities for libraries to deliver information in ways that were not possible before, through effective development of exchange of databases. This development in information technology that includes computers, communication technology etc., provides significant opportunity for library and information centers to provide both domestic and international connectivity between itself and its users. Exploitation of this opportunity would help the librarians in providing online access to the most recent information available in the world [4]. Thus, strong IT infrastructure is desirable in order to extend effective and efficient information services to the users in the veterinary science field.

5.1 Availability of Computer Facilities

Computer is one of the most powerful tools ever designed by man to solve problems that involve computing and processing of data. It can manipulate and transform all kinds of data at a tremendously fast speed. Due to information explosion, Computers have become essential for libraries to provide a master key to information repository and access to knowledge.

Table 1 Computer Systems Available in Veterinary College Libraries

No. of Computers	No of Libraries	%
Less than 10 Systems	19	48.72
10 to 20 Systems	10	25.64
Above 20 to30	10	25.64
Total	39	100

The present survey reveals that, out of 39 libraries, 48.72% of libraries are having less than 10 systems and 25.64% of libraries each possess computers between 10 to 20 and 20 to 30. Computers are the basic IT infrastructure required not only for the LIS professionals to automate in-house activities and services, but also for the users for accessing OPAC and Internet facility. Viewed in this direction, the results are not encouraging as far as adequacy of computer systems are concerned, and therefore, efforts have to be made to procure more number of computer systems in Veterinary College Libraries in India.

5.2 Library Automation

The advent of computers has simplified most of the library operations. Computers can be effectively used for automating various in house activities of the library [5]. Mechanization of library and housekeeping operations performed predominantly by computers is known as library automation. Thus automating library in-house activities and services occupy significant role in extending improved services to the users. In this context, to elicit the status of library automation among Veterinary College Libraries, Table 2 is presented.

Out of 39 Libraries, very meager 7.7% of libraries are fully automated. However, 51.28% of Veterinary College Libraries are in the process of automating their operations i.e. from manual to computers. About 41.03% of libraries are still continuing with manual methods. Thus, present survey reveals that, automation activities are not being used extensively in the veterinary college libraries in India. Although more than half of the Veterinary College Libraries indicated use of Library softwares, most of

Table 2 Status of Library Automation

Status of Automation	No of Libraries	%
Totally Automated	03	7.7
Partially automated	20	51.28
Manual System	16	41.03
Total	39	100

them are semi-automated and this is substantiated from Table 1. Thus the result warrants for effective use of Library software and proper implementation to achieve total automation activities in the Veterinary College Libraries in India.

5.3 Areas of Library Automation

Activities related to acquisition of books, classification, cataloguing, books circulation, serial control, stock verification and book maintenance are traditionally called as house- keeping operations. The computers with significant capabilities are being used in the following areas of the library automation. The following are the areas where computer are being used at present.

Table 3 Areas of Library Automation

Sl. No.	Modules	No of Libraries	%
1	Acquisition	8	20.52
2	Technical Processing (Cataloguing)	8	20.52
3	Circulation	8	20.52
4	Serials Control	7	17.94
5	On-line Catalogue (OPAC)	8	20.52
6	LAN facility in campus	13	33.33

The above table reveals that, out of 39 libraries, only 20.52% of libraries are using computers for in house activities i.e. acquisition, cataloguing and circulation, where as 17.94 % of libraries have computerized serial control activities and extending computerized (OPAC) catalogue services to their user communities. This is followed by 33.33% of libraries having LAN facility in the campus for accessing the off-line and on-line information.

5.4 Digitization of Documents

Today, the advent of information technology has paved the way for reducing the size of the libraries. In fact, modern libraries are moving towards smaller size but with rich potential of information, because the virtual information systems are getting more popular these days in comparison to text based information systems. Therefore, today digital libraries, are gaining more and more popularity amongst the library and its users.

In view of these advantages many of the veterinary college libraries in India are digitizing their repositories for the easy accessibility by the user communities. Details of digitization in Veterinary College Libraries are shown in Table 4.

Table 4 Digitization Activities in Veterinary College Libraries

Digitization	No of Libraries	%
Rare books	3	7.70
Theses	13	33.33
Back volumes of journals	3	7.70
Not yet planned	27	69.24

It is seen from Table 4 that 33.33% of the veterinary college libraries have digitized their theses collection for the easy accessibility, where as 7.7% of libraries have digitized rare books and a similar percentage of libraries have also been converting back volumes of the journals into digital format for ready reference by its users. However, the remaining 69.24% of libraries have not yet planned to digitize their documents. Thus, the concept of digitization activities among Veterinary College Libraries is at preliminary stage and needs to be enhanced.

5.5 Internet Connectivity

Internet has brought a new academic and research culture of understanding and co-operation providing a great boon to the Library and Information Centers in meeting the timely information by click of a mouse. The Internet is the biggest boon to have emerged in the past few years and is an indispensable tool for people in pursuit

of knowledge and information. It is packed with both primary and secondary sources of information, to track which, one has to develop the ability to sift through millions of search engine hits. Most of the information products- data, reports and research papers are increasingly created in digital form and distributed universally through the various Net services such as WWW, E-Mail, and FTP etc. In view of the significance of Internet technology among academic and research community, in meeting their nascent information needs, efforts were made to know the status of Internet connectivity available in the Veterinary College Libraries in India.

It is observed from Table 5 that majority of the veterinary college libraries (87.1%) are extending Internet facility to the users to support their curriculum and research needs. However, remaining five (12.9%) libraries have no Internet facility.

Table 5 Internet Connectivity in Veterinary College Libraries

Internet Facility	No of Libraries	%
Yes	34	87.1
No	5	12.9
Total	39	100

The data of the present table need to be analyzed in the context of the data in Table 5. As found earlier the computer availability in Veterinary College Libraries are not encouraging. Therefore, although the results state that majority of Veterinary College Libraries are extending Internet facility. Internet service with sufficient computer terminals is very essential, if the users have to access the internet. Thus, it is necessary for the colleges to provide more Internet nodes to the users.

5.6 Problems Faced by the Library

Problems to automation are tabulated in the below mentioned table.

Traditional barriers like insufficient funds, lack of space, and lack of training are the problems faced by many veterinary College libraries in India.

Table 6 Barriers of Automation

Sl. No.	Problems	No. of Libraries
1	Insufficient Funds	25
2	Inadequate Staff Training	18
3	Lack of Staff	28
4	Lack of User IT Knowledge	26
5	Problems from Higher Authorities	16
6	Lack of Space	14

6. SUMMARY OF FINDINGS

- i More than one third of libraries (35.9%) do not have full time professional staff and are headed by non library professionals and only 10.3% of libraries are headed by a full time professional librarian.
- ii Professional Qualifications i.e. M.L.I.Sc is possessed by more than half of the librarians working in Veterinary College Libraries (51.2%). However, the percent of professional staff possessing M.L.I.sc, M.Phil (12.82%) or M.L.I.Sc, Ph.D (10.26%) has been found to be very less.
- iii More than half of the library staff have participated and attended seminars, conferences and symposia in the field of Library and Information Science (58.97 %), Workshops (53.84%) and Refresher courses /Orientation Courses (56.41 %).
- iv All the Veterinary College Libraries are conducting User orientation programs to their users and about 89.75% of the libraries organize these user orientation programs every year.
- v Nearly half of the Veterinary College Libraries (48.72 %) are having less than 10 computer systems in their libraries to manage and extend ICT based services to the users. While only 25.64% of libraries each possess computer between 10 to 20 and 20 to 30 computer systems.
- vi Only 7.7% of Veterinary College Libraries have fully automated their library systems and still 41.03 % of libraries are still continuing with manual methods for all the in-house activities and services to the users. Among them, LIBSYS (20.52 %) and SOUL

(33.33%) are the popular library softwares used for automating the activities of the libraries.

- vii One fifth of Veterinary College Libraries in India (20.52%) have been using the automated modules of the library i.e. Acquisition, Technical Processing (Cataloguing), Circulation and On-line Public Catalogue (OPAC).
- viii About 33.33% of Veterinary College Libraries are having LAN facility in the campus for accessing the off-line and on-line information.
- ix 33.33% of the Veterinary College Libraries have been digitizing the theses collections.
- x More than one third of libraries (35.9%) do not have full time professional staff and are headed by non library professionals and only 10.3% of libraries are headed by a full time professional librarian.
- xi Majority of Veterinary College Libraries are extending Internet facility to the users accounting to 87.1%.
- xii Majority of the Veterinary College Libraries (74.36%) are subscribing to CeRA consortium (Consortium for e-Resources in Agriculture) accessing online journals and electronic databases available in the field of veterinary and animal sciences. About 30.76% of libraries are getting articles in the soft copies as a means of resource sharing among veterinary college libraries in India.
- xiii Professional Qualifications i.e. M.L.I.Sc is possessed by more than half of the librarians working in Veterinary College Libraries (51.2%). However, the percent of professional staff possessing M.L.I.sc, M.Phil (12.82%) or M.L.I.Sc, Ph.D (10.26%) has been found to be very less.
- xiv More than half of the Library staff have participated and attended seminars, conferences and symposia in the field of Library and Information Science (58.97%), Workshops (53.84%) and Refresher Courses / Orientation Courses (56.41%).

7. SUGGESTIONS

- i The results of the study found that majority of the Veterinary College Libraries in India are adopting manual method or have partially automated their in-house library activities and services. About, only one fourth of Veterinary College Libraries are using cataloguing module for database creation, automation of Acquisition, Serials control and Circulation module. Further, half of the Veterinary College Libraries in India are having less than ten computer systems in their respective libraries, which reveal the weak status of ICT computing facilities.
- ii Network facilities have not been very encouraging especially among Veterinary College Libraries in India. On the contrary, majority of the Veterinary College Libraries in India (87.1%) are offering Internet facility, which questions the spirit of Internet facility as the availability of Computer systems are very meager in these Veterinary College Libraries in India. Sufficient numbers of Internet nodes are essential to invoke and optimize the information resources available on the Internet in addition to the national consortium e-resources. Mere having the Internet connectivity without better bandwidth and one-to-one facility is of hardly any use.
- iii CeRA (Consortium for e-Resources in Agriculture) is a consortium of e-journals in the field of Agriculture and Veterinary Science, developed by Indian Council of Agricultural Research (ICAR), New Delhi, which provides access to major on-line Portals and Bouquet of Journals from Publishers with full text articles with a mission to develop the existing R & D information resource base of ICAR institutes/universities, etc., comparable to that existing in world leading institutions/organizations and create an e-access culture among Veterinarian scientists/Teachers in ICAR institutes/agricultural universities. Majority of the Veterinary College Libraries (74.36%) are subscribing to CeRA consortium accessing online journals and electronic databases in the field of veterinary and animal sciences, but without sound ICT

infrastructure i.e. computers systems, client-server architecture, network facilities and bandwidth is also a serious handicap.

- iv Staff of the library should be sent to training courses to upgrade their IT Skills.

8. CONCLUSION

Having talked about the problems and areas of applications let us talk about future prospects. Now all the University authorities are realizing that there is no way to escape automation among all veterinary college libraries. They are finding various ways to finance their library automation projects. Librarians are also realizing that they can not remain indifferent to the change; otherwise they will be labeled outdated. One area of concern is the library science graduates being produced by our library schools It is surprising that ICAR/UGC is giving responsibility of refresher courses of library science to the library science school. Even though wide ranges of technology/products are available, it is necessary for librarians to keep a watch on the developments and to choose appropriate technology depending on the needs. Also, it is very important for librarians to interact with computer professionals as the library automation at all levels needs good co-ordination among both these professionals.

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