

## **A STUDY OF PROBLEMS FACED BY ENGINEERING COLLEGES OF VIDARBHA IN APPLICATION OF INFORMATION TECHNOLOGY IN LIBRARIES**

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### **Introduction :**

We all are aware of the traditional concept of libraries, where collection of books or other research material is kept systematically. However, in today's time this concept has changed significantly due to the advent of information technology (IT). Moreover, the IT has made tremendous progress in creation of new information and that too at a very high speed. To collect, store and disseminate this large amount of information the libraries need to develop and use various information technologies. The application of IT in libraries is very critical as it can increase overall operational efficiency of the libraries. The IT not only increases productivity of library staff but also the speed of information dissipation amongst various types of users like students, faculty members and other researchers. It also relieves library staff from ordinary jobs that involves a lot of duplication so that they can be fruitfully used for user-oriented library services.

Moreover, the latest technology also helps in rendering library services that were till date not possible using traditional means. Also, the new IT facilitates improved management of physical and financial resources. In addition to above, the advances in hardware and software technology and its availability at lower cost, has also raised expectations of users from librarians and libraries. The new IT, on one hand, facilitate wider access to information for the library users, on other hand, it facilitates wider dissemination of information products and services generated by the library. In view of the above, this study is carried out to primarily assess the problems faced by the Library and Information Science (LIS) professionals while using various information technology applications in the libraries of engineering colleges of Vidarbha.

### **Research Methodology :**

#### **Sample Size for Main Study :**

Based on the reconnaissance survey of the study region i.e. Vidarbha, in the present study, data have been collected from a total of 30 librarians of engineering college libraries affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur.

#### **Primary data collection :**

The primary data for this study was collected using a standardized research instruments. The research instrument was prepared in view of the generally accepted

principles of instrument design, and was evaluated for its reliability and validity prior to use for the data collection. The data was collected through an online survey procedure. In the present study, Fixed Response (Qualitative) Rating scale/Continuum (Likert-type scale) was used.

### **Secondary Data :**

In the present study, the secondary data has been collected from different national and international journals and magazines, reports from nongovernmental organizations and international agencies.

### **Statistical Analysis of Data and Significance Level :**

Analysis of data has been done with the help of suitable statistical tests. The descriptive statistics, such as frequency, percentage, etc were determined from the collected data. The data was analysed using SPSS 18.0 software. The significance level was chosen to be 0.05 (or equivalently, 5%).

### **Data Analysis :**

#### **Type of College :**

**Table 1:** Distribution of Engineering Colleges with respect to their type

Type of College	No. of Colleges	Percent
Government	1	3.3
Autonomous	4	13.3
Private Sector	25	83.4
Total	30	100.0

Above **Table 1** presents distribution of Engineering Colleges with respect to their type. The data shows that most of the Engineering Colleges (i.e. 83.4%) of the study area are Private Engineering Colleges. Followed by the autonomous Engineering Colleges (4 nos. i.e. 13.3%) and only one was Government Engineering Colleges.

#### **Source of Library Funds :**

**Table 2:** Distribution of Engineering Colleges with respect to their funding source

	No. of Colleges	Percent
AICTE	5	16.6
State Government	4	13.3
Parent Institution	9	30
College Account	25	83.3
Library Fees	12	40.0

Above **Table 2** presents distribution of Engineering Colleges with respect to their funding source. The data shows that most of the Engineering College libraries (i.e. 83.3%) of

the study area get funds from college account. Followed by getting funds from library fees (i.e. 40.0%) while 30.0% engineering college libraries get funds from parent institution. Furthermore 16.6% and 13.3% engineering college libraries get funds from AICTE and state government respectively.

### **Infrastructure Problems faced by Engineering College Libraries while initiating IT service to users**

**Table 3:** Distribution of Engineering Colleges with respect to infrastructure problems faced while initiating IT service to users

	Inadequacy of funds		Lack of IT Skills		Lack of IT Infrastructure		High Hardware & Software Cost	
	Nos.	Percent	Nos.	Percent	Nos.	Percent	Nos.	Percent
Never	3	10.0	3	10.0	2	6.7	3	10.0
Sometimes	9	30.0	12	40.0	16	53.3	4	13.3
Always	18	60.0	15	50.0	12	40.0	23	76.7
Total	30	100.0	30	100.0	30	100.0	30	100.0

Above **Table 3** presents distribution of Engineering Colleges with respect to infrastructure problems faced while initiating IT service to users.

**Inadequacy of funds:** The data shows that most of the Engineering Colleges (i.e. 60.0%) of the study area always suffer from inadequacy of funds. Followed by sometimes facing inadequacy of funds (i.e. 30.0%) and 10.0% engineering colleges do not face inadequacy of funds.

**Lack of IT Skills:** The data shows that most of the Engineering Colleges (i.e. 50.0%) of the study area always face problems regarding lack of IT skills. Followed by sometimes facing lack of IT skills (i.e. 40.0%) and 10.0% engineering colleges do not face lack of IT skills.

**Lack of IT infrastructure:** The data shows that most of the Engineering Colleges (i.e. 53.3%) of the study area sometimes face problems regarding lack of IT infrastructure. Followed by always facing lack of IT infrastructure (i.e. 40.0%) and 6.7% engineering colleges do not face lack of IT infrastructure.

**High Hardware & Software Cost:** The data shows that most of the Engineering Colleges (i.e. 76.7%) of the study area always face problems regarding high hardware and software cost. Followed by sometimes facing high hardware and software cost (i.e. 13.3%) and 10.0% engineering colleges do not face high hardware and software cost.

### **Problems faced by the Engineering College Libraries while providing internet service to users :**

**Table 4:** Distribution of Engineering Colleges with respect to problems faced while providing internet service to users

	Internet Connection		Low Bandwidth		Disconnection		Power Failure	
	Nos.	Percent	Nos.	Percent	Nos.	Percent	Nos.	Percent
Never	2	6.7	5	16.7	4	13.3	21	70.0
Sometimes	22	73.3	7	23.3	21	70.0	6	20.0
Always	6	20.0	18	60.0	5	16.7	3	10.0
Total	30	100.0	30	100.0	30	100.0	30	100.0

Above **Table 4** presents distribution of Engineering Colleges with respect to problems faced while providing internet service to users.

**Internet Connection:** The data shows that most of the Engineering Colleges (i.e. 73.3%) of the study area always face problem of internet connection. Followed by sometimes facing problem of internet connection (i.e. 20.0%) and 6.7% engineering colleges do not face problem of internet connection while providing internet service to users.

**Low Bandwidth:** The data shows that most of the Engineering Colleges (i.e. 60.0%) of the study area always face problem of low bandwidth. Followed by sometimes facing problem due to low bandwidth (i.e. 23.3%) and 16.7% engineering colleges do not face problem of low bandwidth while providing internet service to users.

**Disconnection:** The data shows that most of the Engineering Colleges (i.e. 70.0%) of the study area sometimes face problem of disconnection. Followed by always facing problem due to disconnection (i.e. 16.7%) and 13.3% engineering colleges do not face problem of disconnection while providing internet service to users.

**Power Failure:** The data shows that most of the Engineering Colleges (i.e. 70.0%) of the study area do not face problem of power failure. Followed by sometimes facing problem due to power failure (i.e. 20.0%) and 10.0% engineering colleges always face problem of power failure while providing internet service to users.

## Conclusions :

**Type of College :** From the study results, it evident that majority of Engineering Colleges in the study area are Private Engineering Colleges.

**Source of Library Funds :** From the study results, it evident that majority of Engineering Colleges in the study area get library funds from college account.

**Infrastructure Problems faced by Engineering College Libraries while initiating IT service to users :**

From the study results, it evident that majority of Engineering Colleges in the study area always face inadequacy of funds, lack of IT skills and high hardware and software cost while initiating IT service to users. However, they sometimes face problem due to lack of IT infrastructure.

### **Problems faced by the Engineering College Libraries while providing internet service to users :**

From the study results, it evident that majority of Engineering Colleges in the study area sometimes face internet connection and disconnection and always face problem of low bandwidth while providing internet service to users.

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