

**USAGE OF CLOUD COMPUTING BY LIBRARY  
PROFESSIONALS IN INDIAN INSTITUTES OF  
MANAGEMENT (IIMs): A STUDY**

**ABSTRACT OF  
A DISSERTATION**

FOR THE DEGREE OF

**MASTER OF PHILOSOPHY**

IN

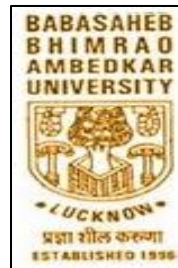
**LIBRARY AND INFORMATION SCIENCE**

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## ABSTRACT

### INTRODUCTION

After the advent of Internet, there are lot of services developed online. Cloud computing is online service based model. The concept of cloud computing is a new one but there are lots of stage to reach here. There were different name to use in initial stage; like grid computing, utility computing and SaaS. Cloud computing is widely adopted technology due to delivery of service over internet. Internet availability has become very easy that's why service of cloud computing is reachable on wider group. There are some technical reason to adopt cloud computing in any organization and system; improvement of energy efficiency, optimization hardware and software resources utilization, elasticity, Flexibility, performance isolation and on demand self-service.

The cloud computing is new business model wrapped around new technologies which attract the users. It provides smooth service for users. Nowadays most of the mobile applications work on cloud platforms. Library has been also developing the mobile application for service providing. Due to attractive feature of cloud computing, it is used in different business organization.

The present study has been taken up to investigate, use of cloud computing by library professionals of libraries of Indian Institute of Management. The study has conducted on Six Institutes of IIMs. They are IIM Calcutta, IIM Ahmedabad, IIM Bangalore, IIM Lucknow, IIM Kozhikode and IIM Indore. Library plays an important role for any institution or organization. In Indian context, IIMs libraries are very rich not only in resources but also in technologies. They offer latest

technologies to their users. Nowadays, Cloud computing is a smooth tool for users for storing and retrieving information over internet at virtual platform.

### **Statement of the Problem**

The problem has chosen for the present study is entitled, “USAGE OF CLOUD COMPUTING BY LIBRARY PROFESSIONALS IN INDIAN INSTITUTES OF MANAGEMENT (IIMs): A STUDY”.

The present study has focused on the usage of cloud computing among library professionals of IIM Calcutta, IIM Ahmedabad, IIM Bangalore, IIM Lucknow, IIM Kozhikode and IIM Indore. The aim of the study is to explore the usage of cloud services and applications among library professionals.

### **Objectives of the Study:**

1. To examine the awareness about cloud computing among LIS professionals;
2. To examine the usage of open source cloud services;
3. To find out the cloud based library websites which are used by library professionals;
4. To investigate security doubt among LIS professionals about cloud storage;
5. To find out the cloud based paid services used in library;
6. To find out most favorable cloud service among library professionals.

### **Hypothesis**

H1. Majority of LIS professionals are aware of cloud computing;

H2. LIS professionals use Google drive, Google Docs and Dropbox;

H3. Majority of LIS professionals use WorldCat and Google Scholar;

H4. Cloud security is the big concern among LIS Professionals;

H5. Google drive is used most frequently by LIS Professionals.

### **Scope and Limitations**

It mainly involves the coverage area of the study. The term scope refers to the limitation which covers specific area. Present time, there are 20 IIMs Institutes in India in different geographical region but Study has been done for six Institutes. The selected institutes are:

<b>S.N.</b>	<b>Institute</b>	<b>Establishment Year</b>
1	Indian Institute of Management Calcutta	1961
2	Indian Institute of Management Ahmedabad	1961
3	Indian Institute of Management Bangalore	1973
4	Indian Institute of Management Lucknow	1984
5	Indian Institute of Management Kozhikode	1996
6	Indian Institute of Management Indore	1996

As the title suggests **“USAGE OF CLOUD COMPUTING BY LIBRARY PROFESSIONALS IN INDIAN INSTITUTES OF MANAGEMENT (IIMs): A STUDY**

The total population of user survey comprises only Library professionals.

### **Need of the Study**

Library has a significant role in maintaining bulk of books, journals and different forms of document. A special library denotes the collection of special kind of

documents to a special group of users. This study deals with the usage of cloud computing by library professionals of IIM libraries. Also, there is no updated study on the usage of cloud computing of LIS professionals. This study will help to identify the strength and weakness of library professionals about new technology as well as approach about cloud services. After the careful examination of the existing literature it was found that in the time of IT era only few libraries have been going ahead to use cloud computing.

### **Research Methodology Adopted**

Methodology is the systematic, theoretical analysis of the methods applied to a field of study. It comprises the theoretical analysis of the body of methods and principles associated with a branch of knowledge. Typically, it encompasses concepts such as paradigm, theoretical model, phases and quantitative or qualitative techniques. Keeping in mind the library professionals in IIM, Whole population was covered for study, survey method, questionnaires as a tool for data collection and Ms-excel were used for data analysis and interpretation.

### **Sample Selection**

In order to investigate, usage of cloud computing by LIS professionals, all LIS professionals of IIMs covered for this study. It means the whole population is the part of the study .The sample is homogeneous in nature as they belong to same disciplines.

### **Data Collection**

This study is based on primary data. The research has adapted to form an integral part of the whole process of the present study. This study conducted to gather data from the library professionals of IIMs libraries with regards to cloud computing and their usage. The data collected by using questionnaire as a tool that was personally

distributed to the concerned librarians and library professionals. The researcher was made personal visit to distribute the questionnaires and observed the working as well as service system of the libraries. One set of questionnaires were designed for collecting the data from all library professionals.

Questionnaires were two types:

1. Open ended
2. Close ended

### **Tools and Techniques**

For this study questionnaire was used as a main data collection tool. After data collection, Ms-Excel was used to analysis and interpretation of data.

### **Major Findings**

- 98% Library professionals of IIMs are aware about cloud computing. Only one Professionals of IIM-L doesn't aware about cloud computing.
- Despite of 98% awareness of cloud computing, only 62% Library Professionals know the basic concept of cloud computing, 38% professionals do not know the concept.
- 14% Professionals use cloud based services and application for personal purpose whereas only 6% use for Library Purpose and 76% use for both library and Personal Purpose.
- When Library professionals use cloud computing for Personal Purpose, 90% professional use for store document, 80% use for store photo, 68% use for store video. 86% use for sharing files, 36% use for collaborative writing.
- When Library professionals use cloud computing for Library Purpose, 86% use for collaboration with library users, 33% use for providing reference service, 38%

use for collaborating with other Library professionals and 20% use for collaborative writing.

- 76% library professionals frequently use mailing services whereas 42% use cloud based Library websites.
- For Mailing service, 90% use Gmail and 18% use Yahoo frequently. Apart from this they use institutional mails also.
- 54% Library Professionals use LIS forum and 52% use LIS Link Frequently. Google Group and Voice Thread like forums are used less. 76% don't use voice thread where as 46% not use Google Group.
- For file sharing, 80% use Google Drive frequently whereas 26% use Dropbox, 24% use Slide Share and only 2% use Egnyte frequently.
- Library professionals frequently use cloud based software and applications like Google Sites (68%) and Google Play store (50%). Delicious and Zoterois used less. Some professionals also use Mendeley.
- For storing data on virtual platform, 80% use Google Drive frequently whereas 32% use Dropbox and 10% use just cloud. One drive is also used by Library professionals.
- 88% professionals have opinion, Cloud computing use to implement for developing digital library, 74% want to hosting website whereas 68% want to use in Library Automation.
- It is very interesting fact 88% library professionals trust in cloud service providers whereas only 12% don't trust due to third party service providers.
- Storing data on Cloud platform is easy for library professionals. 92% professionals have ability to store data whereas only 8% don't store.

- 44% aware about e-book reader and remaining 56% don't know. They use especially Kindle-e- book reader.
- 80% professionals are not using cloud based paid services whereas 20% use paid services.
- 84% use World Cat, 92% whereas 88% Google Scholar, 70% Google Doc and 90% Discovery Service.

## **Conclusion**

Library has been changed regularly with the development of technology. Traditional library has changed in automated library system. Nowadays, professionals have been talked about cloud library or virtual library. There are some services in library like remote access and discovery services which tend to the library to make a virtual library. IIMs libraries have vast online information resources as well as skilled human resources which help to satisfy their users. Cloud computing has changed the role of library professionals. Library expends lots of money to purchase resources and services. Professionals must have duty, not only providing services but they taught users, how to exploit maximum information from library. Library has been purchased/subscribed lot of online databases and e-books, but frequency of access is very low. It is the main concern of library system. In IIMs libraries, there are various facilities, they are best for users. High speed internet, digital repository, automated library systems; cloud based remote access and discovery services. Due to these facilities, library professionals have been used various cloud based platforms frequently.

Library professionals are well aware of cloud computing. They use frequently. It is interesting fact that they also trust in cloud service providers. In present time

cyber security is the big concern all over the world but study found that majority of library professionals' trust in cloud service provider. Behind this outcome, study found that library professionals had problem of real concept of cloud computing. They are confused in concept.

In IIMs most of library professionals use cloud computing applications. Some applications they use frequently. It is the positive sign for library. During study it is seen that IIMs infrastructure is very rich and also use service of cloud service providers. All six IIMs are using discovery service and remote access and different database which run on cloud platforms. They also have in house digital repository. This study helps to those library professionals who work in the field and they want to do new in the field.

## **STRUCTURE OF THE DISSERTATION**

### **Chapter- 1: Introduction**

In the first chapter, following points have been discussed such as overview of the study on IIMs, Library and cloud computing, applications of cloud computing, objectives of the study, scope of the study, hypotheses, research methodology, Population size, statistical tools and techniques and significance of the study.

### **Chapter- 2: Review of Literature**

Second chapter, review of literature discusses all recent study on usage of cloud computing in library by library professionals and services in different institutions or universities of national and international level. It encompasses such as general studies on Cloud Computing and cloud computing models.

### **Chapter-3: Profile of Central Libraries of Indian Institutes of Management**

This chapter presents the brief introduction of Indian Institutes of Management along with profile of their central libraries. It describes central Libraries of IIMs. Six libraries have been discussed with their establishment and development. Especially collection and Services are described in this chapter.

### **Chapter-4: Cloud Computing: Theoretical Study**

This chapter presents the whole aspects of cloud computing. This chapter has discussed evolution of cloud computing, different types of deployment models, kinds of cloud networks and different library services. Characteristics, Features, Pros and Cons of cloud computing have been also discussed in this chapter.

### **Chapter-5: Analysis and Interpretation of Data**

This chapter presents the tabulation, statistical analysis, interpretation and graphical representation of the collected data.

### **Chapter-6: Findings, Suggestions and Conclusion**

This chapter presents the findings and suggestions of the study and concluded with suggestions in future to improve the cloud computing Technology applications and uses in the IIMs libraries. Finding, hypotheses testing and conclusion have been discussed in the chapter.

**Bibliography:** Refers to the citations which are used in the text of dissertation.

**Appendix:** Encloses the questionnaire that was framed and used as data collection tools for the study.