Adoption ofTechnology to Embed Innovation:A survey of Management College Libraries in Bangalore

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ABSTRACT: Innovation in academic libraries includes Digital library systems, Chat reference, Link resolvers, Meta search interfaces, Content management systems, [1]. Current research aims to study the usage of innovative services by the management school libraries in Bangalore and suggests measures to improve innovative library services in Bangalore.A pilot surveywas undertaken to analyze the extent adoption of technology in thirtyManagement college libraries of Bangalore using convenience sampling. The analysis is done using pie chart.The study suggests using such software enhances the quick e-learning skills of students

KEY WORDS: Information communication technology, innovation, academic libraries, higher education

I. INTRODUCTION

The actual the development of the universities library in India happened when the appointment of the University Education Commission was presided by Dr. S. Radhakrishnan (1948-49) and its recommendations, such as, annual grants, open access system, working hours, organization of the library, staff, steps to make students book conscious and the need to give grants to teachers to buy books [2].

UGC has played a significant role in the growth and development of college libraries since 1953 by giving grants for books, equipment, staff and library. One of the most remarkable development in the history of higher education and libraries was the foundation of the INFLIBNET in 1991. Information and Library Network (INFLIBNET) Centre is an autonomous Inter-University Centre of the UGC of India. Another very important landmark in the history of higher education and development of libraries in India is the establishment of "UGCINFONET DIGITAL LIBRARY CONSORTIUM" by the UGC on the concluding day of its Golden jubilee celebrations by his Excellency the then President of India, Dr. A.P.J Abdul Kalam at VigyanBhawan on 28th December 2003. UGC-INFONET is an innovative project launched by UGC to facilitate scholarly e-resources to Indian academies through joint partnership of UGC, INFLIBNET and ERNET. This includes interlinking of universities and colleges in the country electronically with a view to achieve maximum efficiency through Internet enabled teaching, learning and governance. Information for Library Network (INFLIBNET) an autonomous Inter-University Centre of UGC is the nodal agency for coordination and facilitation of the linkage between ERNET and the Universities. Under this programme, information and communication technologies (ICT) and internet is used to transform learning environment from a monodimensional one to a multidimensional one [2].

Hence from the history we can make out that library is the primary and significant requirement for any educational institution. A systematically developed library collection serves as a major academic facility to the faculty as well as students and facilitates them to conduct research in all fields [4].

The 21st Century library is dominated by innovations and innovative ideas, services and products. There has been a rapid change in the field of library and its institutions in this knowledge society. Information and Communication Technology has been considered as the most instrumental factor for the change in the mode of delivery of library services [5].

Some of the significant serviceswhich have been evolved as a result of development in telecommunication are: electronic delivery of documents, online searching of databases, online ordering, electronic directory, teleconferencing, electronic mail, electronic messaging, community information (on TV), business information and recreational information. In India, more and more libraries and information centers are providing information services [6]

II. LITERATURE REVIEW

Current research literature review follows chronological order.A study was done to determine organization success in the 21st century. It was suggested to utilize two tools skillfully, i.e innovation and strategy. The basic challenges faced by organization are utilizing strategy to make decision about innovation, develop value added innovation science on continuous basis and deliver innovative services to the customer [7].A need was felt to examine how national or foreign firms leverage technological competence of inventors fromAsian and other countries. The study suggested a methodoly for extracting data and analysis of bibliography information in a patented document [8].Increased demands of E-Resources by the users and librarians have been observed. Inspite of some problems while using e-resources every user needs e-resources in one or the other form.It was suggested to illustrate various perspectives on innovating librarianship in academic, public and corporate library [10]. It was found out that E-learning is an integral component of the University of Botswana teaching and learning culture. It was suggested that introspection by the library about its every activity needs to be doneto determine scope of innovation. A theoretical model was proposed for organization innovation in research libraries. In this model test has been done how research library can innovated and directions for future empirical studies [12].

Hence, previously some research was done on innovation in library services, emerging technologies in library, Digital library services and Virtual libraries. But it has been observed that no research has been done on adoption of technology to embed innovation in management school libraries in Bangalore. This study aims to study the usage of innovative services by the management school libraries in Bangalore and suggests measures to be taken to improve innovative library services in Bangalore.

III. RESEARCH OBJECTIVES

➢ To analyze the usage E- learning management software in Bangalore management school library
➢ To analyze the usage of content management software in Bangalore management school library
➢ To analyze the usage of Instant messaging software in Bangalore management school library
➢ To analyze the usage of video sharing software in Bangalore management school library
➢ To analyze the usage of digital library software in Bangalore management school library.

IV. DATA ANALYSIS

To analyze the usage of innovative services by the libraries of Management Schools, pilot study was done. For this a questionnaire was prepared on nominal scale and interview was taken focusing on several issues like library automation, digital library, and infrastructure like computer, internet, and innovative library services by the librarians of 30 Management Schools in Bangalore. The sampling was done using convenience sampling. Proportional 'Z" test was used to test the hypothesis.
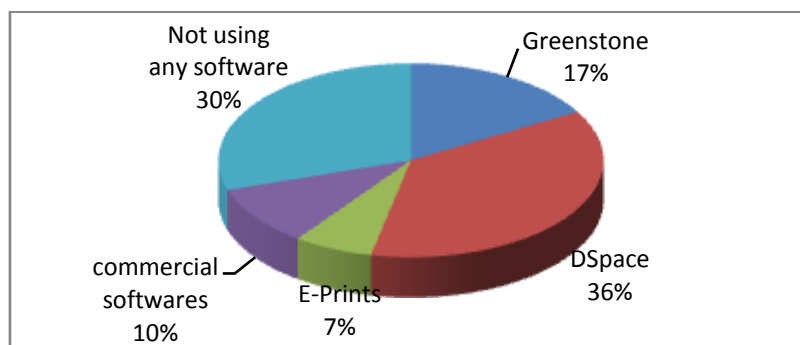

Fig.1: Digital Library Software

36% librariesclaim that they useDSpace digital software in their colleges, 17% libraries claim that they use Greenstone software and 30% libraries claim that they do not use any software in their college. Unawareness and lack of skillsand constraints of budget is main reason for this.
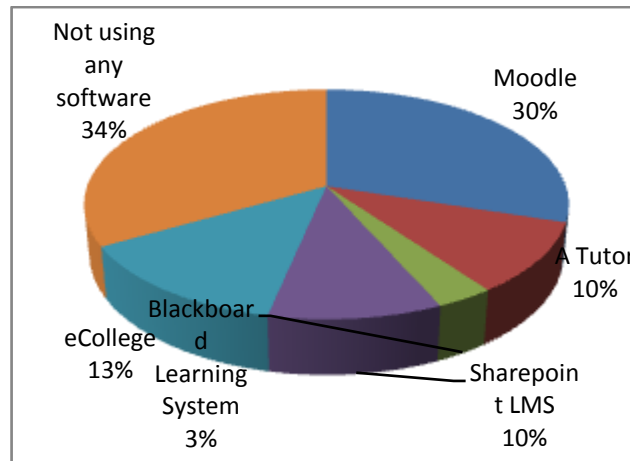
Fig.2: E-Learning Management Software

30% of the sample claims that they are using Moodle software for E- learning and 34% of the selected sample re not using any software for E-learning. This is due to unawareness of this new innovative service.
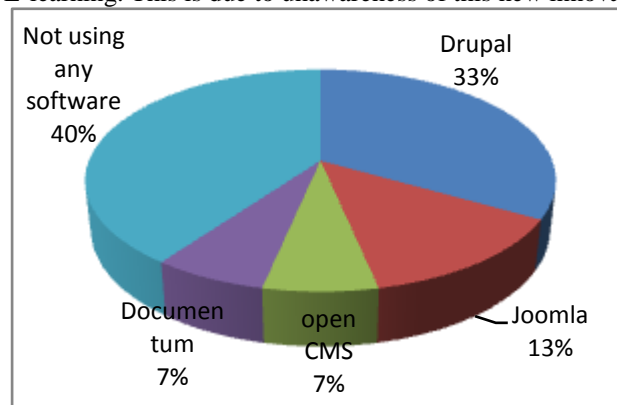

Fig.3: Content Management Software

33% of the sample colleges claim that they use Drupal as content management software and 7% colleges claim that they use CMS and Documentum. 40% of the sample colleges are not using any content management software. Respondents claims that there libraries are not familiar with e-learning management software.
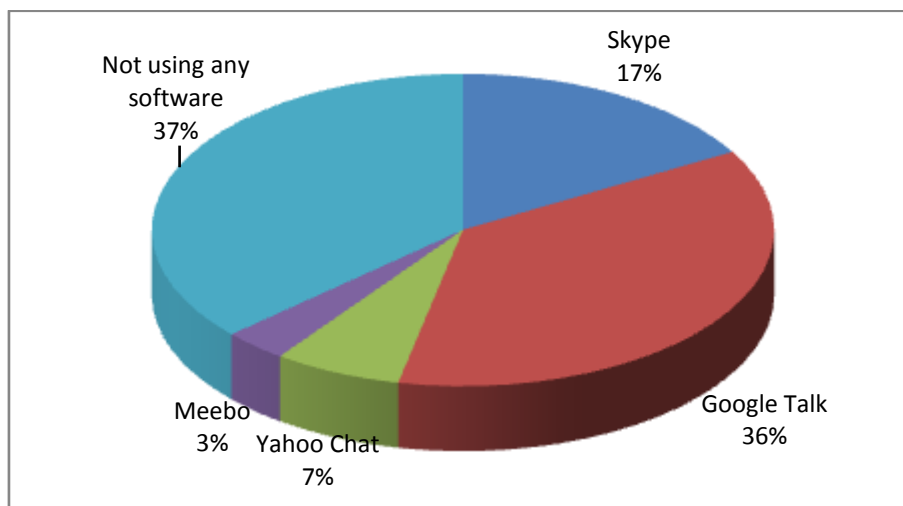

Fig.4: Instant Messaging Tools

Instant Messaging (IM) is a relatively new means of online communication. 36% of the selected college sample claims that they use Google Talk as instant messaging tools and 37% claims that they do not use any instant messaging tools.
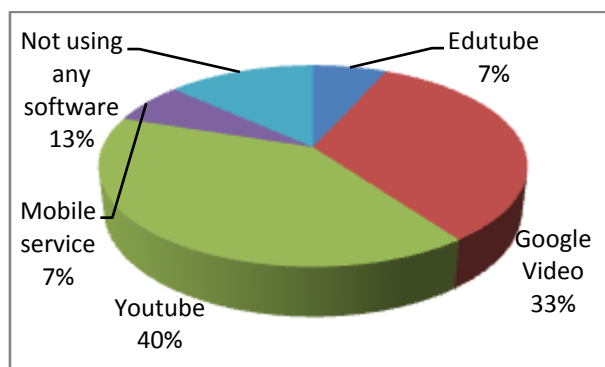

Fig.5: Video Sharing Software

40% of the selected colleges claim that they use YouTube as sharing video software and 13% do not use any software.Respondents claim that they are not familiar with this kind of services.

V. DESCRIPTION OF DATA

Descriptive statistics are used to describe the basic features of the data in a study. They summarize the sample and the measures (Descriptive statistics, 2006).Descriptive statistics can only be used to describe the group that is being studying. That is, the results cannot be generalized to any group [13]. The descriptive statistics of the data are as follows:-

Software	Yes	No	Proportion (Yes)	Proportion (No)
E Learning Management Software	20	10	66.7 %	33.3 %
Content Management Software	18	12	60 %	40%
Instant Messaging Software	19	11	63%	27 %
Video Sharing Software	26	4	87 %	13 %
Digital Library Software	21	9	70%	30%

Table.1: Description of data

From the above statistics, it can be analyzed that 66.7% of the respondents claim that they use eLearning software's, 60% respondents claim that they use content management software, 63% respondents claims that they use Instant messaging software, 87% of the respondents claim that they use video sharing software and 70% of the respondents claim that they use digital library software.

Descriptive statistics was further analyzed to claim about the usage of innovative services by bangalore management business school library. For this some hypotheses were formed.

VI. HYPOTHESIS

For applying proportional Z test, the following thumb rule must be satisfied (Wu).For the current research, np = 30 x .75 = 22.50 (greater than 10) and n (1-p) = 30 x .25 = 7.50. Hence, Z proportional test can be applied for the below mentioned hypothesis.

The following hypotheses were formed and tested using one tail Z test for proportion at 5% significance level:-

Statement	Z Score	Critical Value at 5% los	Rejected/ Accepted Null Hypothesis
Ho: Proportion of Bangalore Management Colleges using E-Learning Management software in library is 75% H1: Proportion of Bangalore Management Colleges using E-Learning Management software in library is less than 75%	-0.88	-1.645	Rejected

Ho: Proportion of Bangalore Management Colleges using Content Management software in library is 75% H1: Proportion of Bangalore Management Colleges using Content Management software in library is less than 75%	-1.5	-1.645	Rejected
Ho: Proportion of Bangalore Management Colleges using Instant messaging software in library is 75% H1: Proportion of Bangalore Management Colleges using Instant messaging software in library is less than 75%	-1.24	-1.645	Rejected
Ho: Proportion of Bangalore Management Colleges using video sharing software in library is 75% H1: Proportion of Bangalore Management Colleges does using video sharing software in library is less than 75%	2.10	-1.645	Accepted
Ho: Proportion of Bangalore Management Colleges using digital library software in library is 75% H1: Proportion of Bangalore Management Colleges using digital library software in library is less than 75%	-0.57	-1.645	Rejected

Table.2: Hypothesis Statement

Hence we reject null hypothesis for all the statements, except for video sharing software services. Therefore, we can analyze that less than 75% of Bangalore management school library uses innovative services like E- Learning management software, content management software, instant messaging software, and digital library software. 75% of Bangalore Management school libraries are using video sharing software.

VII.RECOMMENDATIONS AND CONCLUSION

This study recommendsmanagement school libraries in Bangalore can use more number of library software.Interviews were also taken from 30 management college librarians and suggested that libraries can adopt technology keeping in view of the development of information communication technology. According to them special training program can be organized for library staff for the maximum use of e-learning tools so that users can subsequently trace relevant information. More computers with the latest specifications and multimedia kit can be installed, so that the users can use internet telephony, video conferencing chatting and other useful services of the internet. Development of the nation through library services is neglected in some states, and its services are beyond the reach of the rural poor[14](Public library scenario in India, 2009). Current study will help Bangalore management colleges libraries to analyse the usage of innovative services and to what extent they can improve.

VIII.   LIMITATIONS

This study is limited to Bangalore Management Schools Library. This is the pilot study where 30 libraries were analyzed. Current study can be further taken over for entire Karnataka or a comparison can be done between management college libraries and engineering college libraries in Karnataka. Convenience sampling was used for current research due to time limitation. Probability sampling can also be applied for further research.

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