Use of Koha-ILS in some selected university libraries of Chattogram in Bangladesh: an analytical study

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Abstract

Chattogram is the 2nd largest city of Bangladesh. It is commercial capital and the port city of the country. Recently the government has changed the naming spelling of the city as Chattogram from the former name Chittagong. However, the academically registered institutions of Chattogram use their former name as it appears. This study assessed the performance of the university libraries of Chattogram and tried to assess the operational procedure of open source integrated library system (ILS)Koha in Chattogram, by using sources of primary and secondary data. The study hit upon that the ILS Koha is successfully used for the everyday library activities for ensuring qualitative university education in selected university libraries of Chattogram. To find out the exact scenario of koha-ILS in the university libraries, a total of 20 library professionals were interviewed.

Keywords: Koha-ILS, Library Automation, University Library, Chattogram, Bangladesh.

Introduction

The library is an essential and crucial part of any higher educational institution like as School, College, and University. It is the searching hub for accessing to information and knowledge. Most of the university libraries of Bangladesh are being digitized day by day with the help of technology. Libraries are adding the latest information technology-based system, and service like as Strong Wi-Fi services, online e-book service, and automated service through ILMS (Integrated Library Management System). The use of "Information and Communication Technologies (ICTs)" in libraries is increasing gradually "for providing high-quality personalized services to its users"[1]. The use of ICTs "in libraries may be classified into three broad groups: Integrated Library Systems (ILS), information storage and dissemination, and administration/ office management tasks"[2]. Nowadays, University libraries are enjoying universal facilities. To meet the demands of the users is a big challenge for any university library. Digital library and automated library system have frequently changed the process of collecting information and also allied services where information are decorated in a digitally with over network[3]. Koha-ILS is a system where all library and information activities found in a system. Moreover, all librarians can manage most library functions efficiently with the help of Koha such as "acquisition", cataloging, "serials control", circulation, "online public access catalogs (OPAC)", reports and management of patron. It is the most essential and useful part of automation system on university libraries in Bangladesh as well as in the world.

The objective of the study: The prime purpose of the study is to investigate the present library automation condition of the higher educational institutions of Chattogram in Bangladesh. More specifically, the objectives of the study are: i. To overlook the current library automation services provided by the selected university libraries of Chattogram. ii. To measure user satisfaction level on koha services. iii. To find out the ICT facilities in university libraries of Chittagong Division.

Literature Review: A respectable number of relevant studies on automation activities have been already done nationally and internationally. "The term Integrated Library System (ILS) is also known as Library Management System (LMS) which is an Enterprise Resource Planning (ERP) system for a library"[4,5]. An ideal ILS should have the following modules which are "acquisition, cataloging," OPAC, "circulation, serials control," "Inter-Library Loans (ILL)," reporting and "patron management"[6,7]. Anuradha and Sivakaminathan defined that an "Integrated Library" Automation Package (ILAP) integrates all routine works of a library[8]. Uzomba et al. described that ILS is used to automate many activities in the library[9]. Ahammad defined the term "ILS refers to having all library functions under one system."[10]. Silvestre stated that "an ILS is planned, conceived and developed to coordinate and automate several library functions and register all the library operations. Many librarians in Bangladesh are working to bring their libraries up to global standards. The history of technology involved in library operations and services in Bangladesh goes back to the 1980s"[11]. In 1998, "the Dhaka University Library (DUL) installed the Graphical Library Automation System (GLAS)

software, and some computers were distributed in a Local Area Network (LAN) within the different sections of the library"[12]. "BRAC University Library (BRACUL) installed Koha, a full-featured OSILS in 2010"[13]. "BRACUL used Radio Frequency Identification (RFID) tag with security control devices in 2011 for protecting stealing of books. Then, North South University (NSU) library implemented RFID based Integrated Library Management System (ILMS) in 2012. SUST Library in 2013, BUET Library in 2014 and SAU Library in 2015 have made integration RFID technology with their Koha OSILS"[14]. "Alam and Islam reviewed that automated library systems in Bangladesh are still in the infancy level. However, in recent times, very few initiatives have been noticed taken by different institutions"[15].

Operational Definition: Koha: Koha is essential and popular software at present age for operating knowledge management task under library information science and management. It is an "open source integrated library system (ILS)" where any librarian can operate all data and task at a time and also views all information by user ID and password. All users can quickly take in Koha software service openly. Library integrated system is a cost minimize and time-consuming way than others ILMS such as TINLIB software. It has many full features, comprehensive modules, and library-oriented services for operating a library and automation tasks such as acquisition, circulation, cataloging, serials control, patron management, report generating, barcode printing, email and sms alert service, OPAC, branch relationships and much more. Mentionable that "Koha is a web-based ILS"[16]. Koha is the first and full-featured OSILS, mostly used worldwide by the public, academic and special libraries. "Since the original implementation in 1999, Koha functionality has been adopted by thousands of libraries worldwide, each adding features and functions, deepening the capability of the system"[17]. Koha is web-based ILS, supported with MARC, Z39 and SRU and free downloadable from the Koha web site as well as some other sources. Figure-1 has represented all Koha ILS function below:
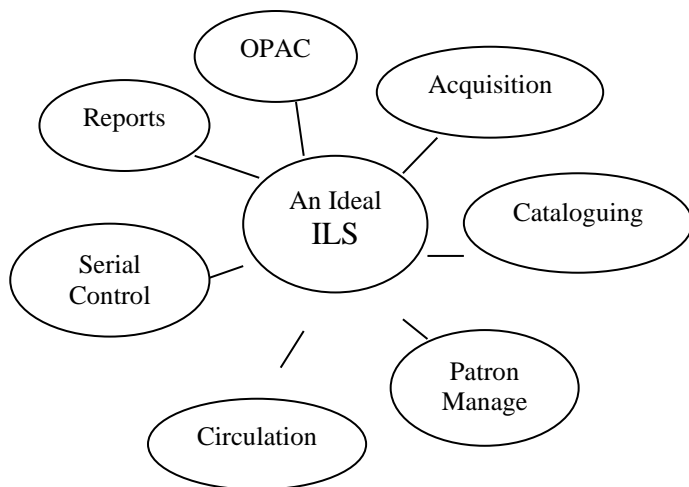

Figure-1: Koha integrated library system with Modules[18].

Methodology

A total of two public and three private university libraries namely "Chittagong University of Engineering and Technology (CUET)"[19] library, "Chittagong Veterinary and Animal Sciences University (CVASU)"[20] Library, Chittagong Independent University (CIU) library, "International Islamic University Chittagong (IIUC)"[21] and Premier University (PU) Chittagong library were decisively selected for this research. To give a detailed analysis of the study, the websites of these university koha url were used as a vital source of information for conducting this research. Besides this, the literature on the automation system from the national and international arena was reviewed to get the concept of automation and ILS. To determine the present scenario of automation by koha-ILS in University of Chittagong Division interview method has been carried out in selected libraries with koha administrators.

Results and Discussion

Status of Koha-ILS in university libraries of Chattogram Division: At present, there are forty-one public, hundred-three private and three international universities in Bangladesh[22]. In Chattogram, only 6 university libraries, i.e., Chittagong Independent University (CIU) Library, Chittagong University of Engineering and Technology (CUET)[23] Library, Chittagong Veterinary and Animal Science University (CVASU)[24] Library, "International Islamic University Chittagong (IIUC)[25] Library, Premier University (PU) Library and Southern University Library are using Koha-ILS. Table-1 demonstrated the using status of Koha-ILS in university libraries of Chattogram, Bangladesh.

Chittagong Independent University (CIU): CIU is a Private University under the Private Universities Act 2010 mandated by University Grants Commission (UGC) and the Government of the People's Republic of Bangladesh. CIU started its journey in 1999 as the Independent University, Bangladesh (IUB), Chittagong Campus.

The library was established in 1999. To search reading materials, library provides OPAC with integrated cataloging system using Koha database management software. Library maintains open access and open shelves system from where the student can take their books according to their choice. The library maintains its activities with the semi-automated system and planning to introduce DSpace software for full automation"[26].

Chittagong University of Engineering and Technology (CUET): CUET located in Raozan Upazila, Chattogram District, Bangladesh, is one of the public engineering universities in Bangladesh. The university maintains a special emphasis on research"[27]. The central library installed koha-ILS in 2018 to confirm useful and well-organized library services to the faculty, students, and researchers of the university.

Table-1: Use of koha in the selected university libraries of Chattogram, Bangladesh.

University	University Type	Current OSILS	Version	Est. Year	Operating System
Chittagong Independent University (CIU)	Private	Koha	3.0	2012	Linux-Debian
Chittagong University of Engineering and Technology (CUET)	Public	Koha	3.22.12	2018	Linux-Debian
Chittagong Veterinary and Animal Sciences University (CVASU)	Public	Koha	3.06.12	2012	Linux-Debian
International Islamic University Chittagong (IIUC)	Private	Koha	3.20	2015	Linux-Debian
Premier University Chittagong (PUC)	Private	Koha	18.05	2012	Linux-Debian

Chittagong Veterinary and Animal Sciences University (CVASU): The Chittagong Veterinary and Animal Sciences University (CVASU) was established by the Act of the Government of the People's Republic of Bangladesh on 07 August 2006. To ensure effective and efficient information services to the patrons, CVASU Central Library has introduced state of the art automation technology using Radio Frequency Identification (RFID). It is moving forward to make the University as a center of excellence providing world-class library and Information services"[28]. It provides the Online Public Access Catalogue (OPAC) services to its users through koha.

International Islamic University Chittagong (IIUC): International Islamic University Chittagong (IIUC) is one of the top graded Government approved private universities in Bangladesh"[29]. IIUC runs well their library activities and services by Koha. "IIUC authority established the University library in 1995"[30] at the commencement of its journey. It has the largest collection among the private university libraries in Bangladesh. The full name of the library is "Library and Information Division (LID)[31]. "There are over than 85,500 books in IIUC Library covering the subjects relating to the academic programmers and other co-curriculum disciplines. The library can accommodate easily over 456 users at a time in its full air-conditioned reading room. More than 300 users use the library every day"[32]. University's staffs and users can find books or others necessary information in a short time by using Koha software under OPAC catalog tool searching with the title, author, subject, ISBN, serial and call number. Library successfully operates the Koha-ILS from 2015. The library system followed all modules of Koha for ensuring efficient services to users and also professionals. The central library services at IIUC is rapidly changed and developed by installing Koha-ILS, and the ratio of users is expanding day by day because all users can access world widely by Koha-ILS[33].

Premier University (PU): Premier University was established in the year 2002 at Prabartak Circle, Chattogram. Premier University starts its journey with Koha integrated library management software in early 2012. "PU Library has developed a library database and maintains cataloging, searching, and issuing reading materials. Using the KOHA ILS system"[34]**.**

Library resources managed by Koha: All the selected libraries managed books through the Koha. The table 2 shows that all selected libraries maintained journals, magazines, and DVDs and theses/internship reports besides books by the integrated library system.

Table-2: Managing library resources by Koha in Bangladesh.

Features	CIU	CUET	CVASU	IIUC	PUC
Books	Yes	Yes	Yes	Yes	Yes
Journals	Yes	Yes	Yes	Yes	Yes
Magazines	Yes	Yes	Yes	Yes	Yes
Thesis	Yes	Yes	Yes	Yes	Yes
e-Resources	Yes	Yes	Yes	Yes	Yes

Number of books and patrons: Table-3 and Figure-2 illustrate that the highest number of titles were 16500 in IIUC Library whereas the lowest number of titles were 2992 in CVASU Library. It also shows that the most significant number of books were 85000 in IIUC Library whereas the lowest number of books were 7000 in CIU Library. IIUC library managed the maximum number of users (two thousand) in contrast IIUC Library maintained only eight hundred users. It is also found that each of the selected university libraries managed average 9098 books of 35200 titles for 1420 users.

Features of koha used in selected university libraries: All the selected university libraries had the required six features of the integrated library system which were cataloging, circulation, OPAC, user login, patron management, and fine control. Three university libraries used barcode print modules. Table-4 demonstrated the assumed features of koha in the selected university libraries.

Table-3: Number of books and patrons.

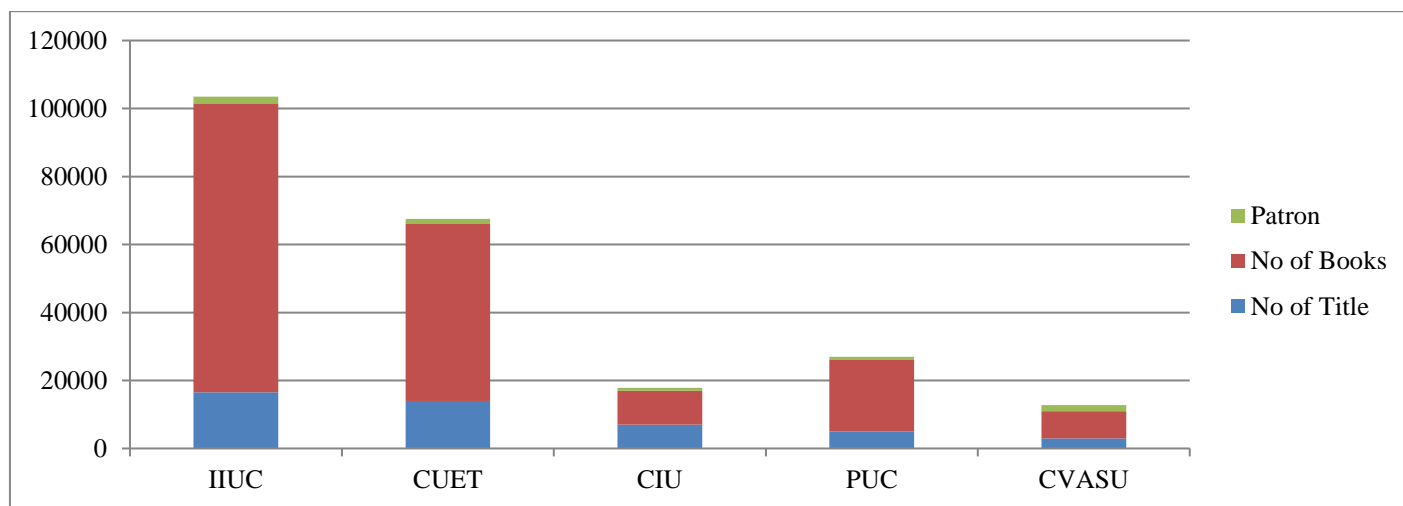| University	No. of titles	No. of books	No. of Patrons
International Islamic University Chittagong	16500	85000	2000
Chittagong University of Engineering &Technology	14000	52000	1500
Chittagong Independent University	7000	10000	800
Premier University	5000	21000	1000
Chittagong Veterinary and Animal Sciences University	2992	8000	1800
Total	45492	176000	7100

Figure-2: Statistics of books and patrons of selected university libraries.

Table-4: Used features of koha in the university libraries.

Features	CIU	CVASU	IIUC	PUC	SU
Circulation	✓	✓	✓	✓	✓
Cataloging	✓	✓	✓	✓	✓
OPAC	✓	✓	✓	✓	✓
User Login facilities	✓	✓	✓	✓	✓
Patron management	✓	✓	✓	✓	✓
Fine control	✓	✓	✓	✓	✓
Barcode printing through ILS	✓	✓	✓	×	×
Purchase suggestion through ILS	✓	✓	✓	×	×
Reservation of books	✓	✓	✓	✓	×
Auto email alert service	✓	×	✓	✓	×
Stocktaking	✓	✓	✓	✓	×
RFID	×	✓	×	×	×
Acquisition	✓	✓	✓	✓	✓
Auto SMS alert service	×	×	×	×	×

Recommendation: To emphasize the following recommendations to accept a proper and suitable ILS in university libraries of Bangladesh and other developing countries: i. Need to ensure the better and updated ICT facilities. ii. To recruit more skilled professionals. iii. Require to develop a positive attitude towards the library of university higher authority. iv. Develop the resource collections, v. Organize the training program, vi. Adequate allocation of budget for library automation.

Conclusion

"At this digital age, open-source opportunities are becoming widespread in many countries. The interest of Koha and other modern library technologies among library professionals and library users in Bangladesh is increasing day by day"[35]. This research shows that It is an "integrated library management (ILM) system" that functioning by Koha software which contains the essential features of modules. Koha is an open sources ILM system by which all library activities are conducting efficiently and timely. It is found that the selected five higher education institutes of Chattogram in Bangladesh are performing their library activities efficiently and successfully with the help of Koha-ILS.

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