USERS' AND LIBRARIANS' PERCEPTIONS OF SCHOOL RESOURCE CENTER KOHA LIBRARY AUTOMATION IMPLEMENTATION: A CASE STUDY OF SCHOOL RESOURCE CENTER AT KOLEJ TINGKATAN ENAM PETALING JAYA

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This paper discusses the findings of qualitative and quantitative data analysis on users' and librarians' perceptions of school resource center KOHA library automation which has been installed in the library. Descriptive statistics by using SPSS analysis tool shows that the use of KOHA at the school resource centre has resulted in positive feedback from the users. The respondents perceived themselves moderately high for all statements on reliability, personalized search, information security, flexibility, functional benefit and benefit in supporting teaching and learning process. The installation of KOHA is part of an outreach program for the community, by Asia e University Knowledge Centre. The initiative is aligned with the Digital Malaysia program, which was designed to promote the use of ICT which can improve the livelihood of society and education. Furthermore, librarians may help in supporting the education system and upholding a quality education system in general by working together with other librarians regardless of the difference in terms of the library type.

Keywords: Open source; School Resource Centre; KOHA; School library; Library automation; Corporate Social Responsibility (CSR)

1.0 Introduction

Kolej Tingkatan 6 Petaling Jaya (KTEPJ) (formerly known as Sekolah Menengah Kebangsaan Petaling Jaya) is AeU's "Foster School Project" since April 2014. AeU Knowledge Centre has assisted the school in setting up a Library Management System (LMS) using open source KOHA software. Series of training on various KOHA application modules were carried out in 2014 for teachers and students. Subsequence training were carried out in 2016 at AeU Knowledge Centre.

In November 2018 the school contacted AeU Knowledge Centre, raising issues on current problems with KOHA. AeU's librarians visited the school in mid-November, 2018 to assess the LMS and discuss with the teacher in-charge on issues relating to LMS and training needs. In recent development of the project, AeU Knowledge Centre has taken the initiative to collaborate with the school to solve the current raised issues as follows:

1.1KOHA

The school has a constant problem in Internet connection, which hinders access to the LMS as the school's KOHA data was hosted on a server outside the school at that time. Thus, the solution taken was to reconfigure the LMS setup to intranet, whereby KOHA is host in a server located within the school library. One dedicated PC was allocated as a server and installed with the latest version of KOHA (version 18.11) in March 2019. Data migration was also carried. The older version KOHA was running parallel with the new version until all problems relating to data migrations are solved and data integrity has been established.

1.2 Training

AeU Knowledge Centre has conducted three days' KOHA Training Workshop (in March and April 2019) for students and teachers held at the school's computer laboratory. The training modules covered are Cataloging, Circulation, Report Generation, and Library Information Skills. The training also includes hands on session.

1.3 School Library Website

The school library website was improved by adding new and updated open source e-resources in the "Library school Online Resources" menu (e-books collection online newspapers and YouTube resources). The teacher librarian works collaboratively with AeU librarians on the selections of suitable resources updated in the library website. (http://erckt6pj.wixsite.com/thepeoplelibrary).

A survey was carried out at the end of the project, to measure user perceptions of the KOHA LMS and the training conducted. This paper presents the findings of a study on qualitative and quantitative data analysis on users' and teacher librarians' perceptions of school resource center KOHA library automation. Specifically, the objectives of the study are:

- i. To investigate the perception of student librarians and teacher librarians on the implementation of KOHA ILS in their school
- ii. To examine the challenges faced by the librarians in the process of utilizing and promoting the KOHA

2.0 Literature review

2.1 KOHA: Open source Integrated Library System

Koha's growing popularity is an indication of its usability and sustainability. It was first introduced in the year 2000 and to date has been applied in more than 1000 libraries worldwide and is beginning to make its mark in Malaysia. This is viewed as confidence in the system is future proof and reliable. The Nelsonville Public Library in Athens County Ohio migrated from the stable vendor based Spydus ILS to Koha in 2002 (Yusoff & Bakar, 2010). Integrated Library Systems (ILS) is defined as an interrelated group of computer programs that automates multiple library operations (Mansor, Bakar, & Sham, 2012).

According to Nazuki & Mazlan (2017), the important modules of Koha are acquisition, cataloguing, and circulation modules. Firstly, the acquisition module. The libraries can set up their budgets and create their vendor's database. Secondly the cataloguing module. The functions of the cataloguing are record creation, duplicate checking, record editing, authority control, copy cataloguing, keyword/thesaurus generation and import and export data. Finally, the circulation module. The circulation module in an ILMS has common functions and features used in workflow by all types and size of the library. This means it can make the users access to the material from the library. Besides that, it helps the staff to make the decision making on the collection development as well.

2.2 School Resource Centre's (SRC) Role

SRC is a school level institution which is set up to facilitate the systematic collection and handling of teaching materials used to aid the learning process. The Ministry of Education, Malaysia, emphasize SRC as a system of services to enable schools to achieve their curriculum targets. Traditionally, school libraries were primarily setup as a place to house collection of books and other printed materials to meet the students' reading needs as well as educational and language development (Fatimah, 2002). Today, the role of SRC has changed in line with the rapid growth of information and methods of searching for information and knowledge. Its importance has been extended to be a system that supports the

national educational goals (Educational Technology Division, 2002). As such, SRCs must play active roles to develop themselves by continuously improving its collection and organizing activities that can enhance the quality of teaching and learning in schools (Norhiyah, 2009).

An SRC is managed by a teacher-librarian who is also a full-pledged subject teacher. To ensure that teacher librarians have time to manage and organize the SRCs, the Ministry of Education appoints full-time teacher librarians in schools to support the implementation of SRC and Smart School programs. Full-time teacher librarians are allotted to only teach 6-8 periods a week but should spend 18-20 hours a week to manage SRCs with the assistance of the schools' SRC committee members. (Zainudin & Ismail, 2010)

2.3 Koha and School Resource Centre (SRC)

Almost no SRC in Malaysia has used KOHA as their ILS (Mohamad et al., 2017). Majority of SRC use manual way of collection listing. The users have to browse from shelf to shelf to search for titles. The initiative of installation on Kolej Tingkatan Enam Petaling Jaya on 2014 can be considered as a beginning step towards online access to the SRC library catalogue. As compared to a developed country (United States of America), KOHA has been used by the school library widely as their ILS widely where at least 32 of the school library utilizing the software (Breeding, 2007). The more number of SRCs use KOHA as the ILS will facilitate SRCs in not only in terms of the support but the success of collaborative bibliographic network among SRCs in Malaysia. The Malaysian government is now turning to use open source and SRCs in Malaysia need to muddle through the rapid technological changes (Mansor et al., 2012).

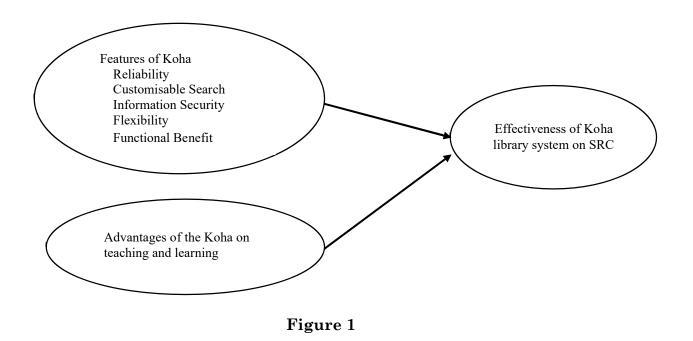
2.4 Challenges for Open sources in School Resource Centre

Even though Breeding (2009) emphasize that libraries generally need not employ more technically trained staff to implement an open source ILS, trained staff with the ILS will improve the service. As mentioned by (Bakar & Zain, 2010), equipment, trained SRC librarians and opening hours of the SRC are among the aspects that need to be improved in order to upgrade the quality of SRC.

A research on five SRCs in Malaysia by (Mansor & Nor, 2011) shows that in terms of searching method, the respondents were not using enough of the latest search methods. The majority still used shelf to shelf browsing as their preferred searching method. SRCs still using catalogue cards and some of them do provide an electronic list of library collection for retrieval in dedicated PC. Unfortunately, the reported findings shows that the usage is low. This is due to the fact that the possibility of its inadequacy of the equipment and lack of awareness about the service as well as information literacy among the users. Indeed, the study showed worrying trends for SRC usage level.

2.5 Theoretical framework

In this research framework, there are two independent variables and one dependent variables studied. All the variables above are studied in order to determine the effectiveness and satisfaction of KOHA system implementation on SRC among the users. Figure 1 shows the research framework of effectiveness Koha system in the school resource center. Two variables; features of Koha library system and perception on the Koha library system are based on the studies by Nazuki & Mazlan (2017) and Zain (2016).



3.0 Methodology

In this study a self-constructed questionnaire was used as the data gathering instrument. "This questionnaire was developed by the researcher based on the adoption and modification of the elements extracted from the research framework of effectiveness KOHA system in school resource center proposed by Nazuki & Mazlan (2017). The questions have gone through internal validation by the experts in library and information management field as well as pre-test. Six categories of questions namely; i) reliability, ii) customisable search, iii) information security, iv) flexibility v) functional benefit and vi) effectiveness in teaching and learning process are asked. The responses to each item in the questionnaire are in the form of five point Likert scales of "strongly disagree", "disagree", "undecided", "agree" and "strongly agree". The questions covered all the relevant information needed to examine the users' and librarians' perceptions of SRC KOHA library automation implementation. Out of fifty (50) questionnaires distributed, thirty (30) valid responses were gathered using purposive sampling. SPSS data analysis tool is used to analyse the quantitative data. Two teacher librarians (TL#1 and TL#2) were chosen to participate in the interview pertaining to their perception and challenges faced in the KOHA implementation and utilization.

4.0 Results

4.0 Demographic background

This section reports the demographic background of the respondents, reliability analysis, the perception of users' and school librarians on the implementation of KOHA ILS in their school as well as the challenges faced by the librarians in the process of utilizing and promoting the KOHA ILS.

		Frequency	Percent (%)
Gender	Male	2	6.7
	Female	28	93.3
	Total	30	100.0
Race	Malay	5	16.7
	Chinese	14	46.7
	Indian	9	30.0
	Others	2	6.7
	Total	30	100.0
Stream	Sciencs	22	73.3
	Arts/Literature	8	26.7
	Total	30	100.0

Table 1

4.1 Reliability analysis

The variables of interest in this study are measured by the respective aggregated mean of items. The number of items for each variable ranges from 4 to 6 (Table 1). The reliability test results indicate that 'Features of Koha' (0.60) and 'Advantages of the Koha on teaching and learning' (0.75) have acceptable internal consistency, thus satisfying the validity assumption of the items in the respective dimensions.

No.	Variables	Cronbach's a	No.of items
1.	Features of Koha	0.60	10
3.	Advantages of the Koha on teaching and learning	0.75	4

Table 2

4.2 The perception of users' and school librarians on the implementation of KOHA ILS in their school

4.2.1. Features of Koha

From five point Likert Scale, the analysis lay out the result in descending order of "agree" mean value; 3) Agree 2) Neutral 1) Disagree. The mean scores in Table 3 indicate that on average, the respondents have perceived themselves high (2.97 to 3.00) regarding the features of Koha.

Statement		Std.
		Deviation
1. The online library search (intranet) using the KOHA system is seamless		0.00
2. The search for online library materials (intranets) using the KOHA system is reliable and consistent	3.00	0.00
3. Most of the books I look for in a School Resource Center can be found at the KOHA database	3.00	0.00
4. I can easily find the material I need online and precisely without spending a lot of time	2.97	0.18
5. With the KOHA system, information and data regarding the collection of resource centers is safer even when something unexpected happens	3.00	0.00
6. With the KOHA system, information and data regarding the collection of the resource center is easier to access when needed and can be controlled with access by password	2.97	0.18
7. With the KOHA system, I was able to access information about school resource center collections with just the right tools	3.00	0.00
8. With the KOHA system, I can easily find what I'm looking for most of the time	2.97	0.18
9. With the KOHA system, I can find exactly the information I am looking for	3.00	0.00
10. With the KOHA system, I can find the information I am looking for with minimal effort and time	3.00	0.00

Table 3

4.2.2. Advantages of the Koha on teaching and learning

The result shows in Table 4 that they also perceive themselves relatively high (2.90-2.97) regarding four items on advantages of the Koha on teaching and learning.

Statement	Mean	Std.
		Deviation
1. With the KOHA system, it enabled me to get things done faster	2.97	0.183
2. With the KOHA system, it enhanced my ability to learn or teach		0.305
3. With the KOHA system, it improved my effectiveness		0.183
4. With the KOHA system, it has allowed me to be more productive	2.97	0.183

Table 4

4.3 The challenges faced by the librarians in the process of utilizing and promoting the KOHA ILS.

There are three main challenges faced by the librarians in the process of utilizing and promoting the KOHA ILS. Firstly, the equipment of the SRC. As the informant said that;

"Internet access, the government given (YES) is very slow.. the teachers has subscribed UniFi instead LAN network. Server network problem, wiring problem (technical), due to some issues, the wiring cannot be done properly. In fact the students sometimes use their own hotspot. Currently only 5 PCs available in SRC..". (TL#1).

Secondly, the lack of trained and IT savvy staff or librarians. The informant highlighted;

"There are no technician, only voluntary basis by the teachers who are IT savvy, but they are quite busy and no incentive given for their voluntary work. Teacher librarian also busy but thankfully being released from major miscellaneous responsibilities such as related to co-curricular activities.." (TL#1).

She stressed on the need of the training among the librarians.

"Hands on is a must in the training session to make the KOHA can be practice" (TL#2).

Not only that, the teacher librarians keep changing and busy with their STPM examination. Another informant added;

"New students are keep changing and so do the librarians. Turnover of students is high since there are only 2 batches (lower and upper 6), new batches takes some time to get confirmation to stay (usually student librarian appointment is done in August). Meanwhile, the senior students focus on STPM especially after the month of May." (TL#2). Thirdly, the awareness of using the library collection is low among the users. Although SRC should be a tool in supporting the teaching and learning process, teachers did not utilize the facility in an optimum way. Informants mentioned;

"Only several teachers who really use the library collection, what more KOHA. They are busy with the core workload." (TL#1). "Teachers are busy with their core work as a teacher and did not really use the library" (TL#2).

The result is consistent with the finding by Bakar & Zain (2010) which mention equipment, trained SRC librarians as the challenges in SRCs. Not only that, the result echoes the findings by Mansor & Nor (2011) which highlight the SRCs that are under-utilized.

5.0 Conclusion

The study revealed that the student librarians were found to react positively to the implementation of Koha library management system. In empowering society, we need to use digital technology as a tool. Since librarians and information managers are the key person towards the information gateway, we should make a contribution in creating positive social impact in our own capacity. This project does not only spark awareness but also call for more libraries to join the effort in making an impact on society.

Obviously, there are some space of improvement which requires some solutions by the management of the SRC such as reacting proactively to some of the issues as discussed in this paper such as in terms of equipment, staffing and awareness. As mentioned by Bakar & Zain, (2010), 'Only when quality is taken into consideration in the running of the SRC that quality education for the students can be assured.' By promoting resource sharing and bridging the digital divide, the role of SRC in supporting discovery of information resources is enhanced (Mansor et al., 2012). Koha implementation program that has been done somehow assist SRC in Malaysia in meeting its role as a knowledge hub that supports teaching and learning.

It is hoped that this study could contribute to the understanding of the role of established libraries in Malaysia to be involved in Corporate Social Responsibility (CSR) especially in developing a quality School Resource Centre in schools in Malaysia.

References

Bakar, A. B. A., & Zain, W. M. (2010). Quality school resource centre: the beacon of quality education. In *Proceedings of the Canada International Conference on Education (CICE-2010).* Toronto, Canada.

Breeding, M. (2007). Librarians face online social networks. *Computers in Libraries*, 27(8), 30–32. https://doi.org/Article

Fatimah, J. (2002). School libraries in Malaysia. In *IASL Conference*. Petaling Jaya: Malaysia.

Mansor, Y., Bakar, A. A., & Sham, N. (2012). Collaborative open bibliographic network for Malaysian school libraries. In *International Conference on Libraries* (hal. 1–10). Kota Bharu, Kelantan.

Mansor, Y., & Nor, N. M. (2011). Use of the School Resource Centre among Malaysian High School Teachers Use of the School Resource Centre among Malaysian High School Teachers. *Library Philosophy and Practice (e-journal), 588*.

Mohamad, M. M. A., Abu, B. A., Kamarulzaman, A. N., Seman, R., Baharuddin, M., Hashim, F., & Nurhidayah. (2017). Engaging Open Source Technology in Resources Center Using Koha ILMS: A Case Study at Sekolah Menengah Petaling Jaya Selangor Malaysia. *Advanced Science Letters*, 23(11), 10705–10708.

Nazuki, N. Z., & Mazlan, M. A. (2017). The Effectiveness of KOHA Integrated Library System in School Resource Centre: A Proposed Framework. *Research Hub*, *3*(7), 5–9.

Norhiyah, M. N. (2009). School teachers' perceptions on the role of school resource centre and its impact on information literacy programmes: a study of five secondary schools in Gombak district. International Islamic University Malaysia.

Yusoff, T. M., & Bakar, A. A. (2010). Open Source in Libraries: Implementation of an Open Source ILMS at Asia e University Library. In *Seminar Kebangsaan Teknologi Maklumat Di Perpustakaan*. Pulau Pinang.

Zain, W. M. (2016). Web-based E-journal Service Quality as a Determinant of Users' Satisfaction at Research and Non-Research Universities. Doctoral Dissertation. International Islamic University Malaysia.

Zainudin, F., & Ismail, K. (2010). Measuring Malaysia school resource centers' standards through iQ-PSS: An online management information system. In *Proceedings of the 12th Biennial School Library Association of Queensland, the 39th International Association* of *School Librarianship Annual Conference* (pp.1–20). Brisbane, Australia.