

User Perceptions on Newly Introduced Online Public Access Catalogue (OPAC) to the Library of the University of Moratuwa (UoM), Sri Lanka

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Abstract

Librarians always try to provide better solutions to their users to optimally utilize the available resources. The user attractive Online Public Access Catalogue (OPAC) is one of the solutions for making access to resources. Library of the University of Moratuwa (UoM) recently customized its OPAC through KOHA open source software and it is observed that mostly used by its user community. Therefore, this study made an attempt to evaluate user perceptions towards the newly migrated OPAC service via KOHA in the UoM. The study adapted the survey research strategy with a structured questionnaire. Stratified random sampling was employed as faculties and 335 online questionnaires were administered. The response rate of the study was 59.71% and most of the students were from the Faculty of Architecture. According to the findings, although students' participation for library education programs is relatively better and overall awareness of the changes in the OPAC is low. However, more than 50% of 4th year students are aware of the changes. More than 50% of students believe new OPAC can use easily access to library resources. Experience in using OPACs and having instructed on use of OPACs are the helpful factors

in successful use. Finally, majority of the respondents' perceptions on the novel OPAC is more attractive, user friendly, easy to use and efficient than previous one. Based on the findings recommendations were made to conduct regular user education programs on advantages that can be received through KOHA-OPAC of the UoM.

Keywords: Online Public Access catalogue, OPAC, University of Moratuwa, KOHA

1. Introduction

In this information era, a wide range of information is transmitted through the computer and communication technologies. Those technologies provide ways to trace out the desired information as quickly as possible (Pollard, Earnshaw, Lippincott-Schwartz, & Johnson, 2008). Librarians always make attempts to provide easy access to users for their rich collections. As Pollard et al. (2008) highlights OPAC is one of the mediums through which can search out the items which are required by users at home or in the library efficiently. Therefore, the OPAC is considered to be the heart of the library operations and gateway of library services as it facilitates the patrons to the various services of the library and acts as "an instrument of change in today's libraries" (Mulla & Chandrashekara, 2009).

Almost all university libraries in Sri Lanka provide access to their collections through this OPAC facility provided by commercial library systems as well as open source systems. However, the Library of the University of Moratuwa (UoM) facilitates a recently customized OPAC through KOHA open source software and it is observed that mostly used by its user community. This development offers the right time to make certain users' perceptions on newly customized OPAC. Hence, the present study basically attempts to find out user perceptions with regard to OPAC of the UoM.

The study's first contribution to the literature is public assessment of the OPAC System in UoM Library. Secondly, the findings from the study would provide the management of UoM Library the necessary information on how their clients perceived their OPAC services. This would be very significant when the Library re-evaluates its goals and objectives. Finally, it is hoped that the findings of the study would lead to improvement of the provision of better and efficient OPAC system in UoM Library and also ensure the satisfaction of the clients' use of the OPAC System. Also, this will be helpful who are willing to migrate their system to KOHA.

2. Background of the study

2.1 Concept of OPAC

Traditionally a catalogue is the main path of accessing a library's collection, containing the bibliographic details of resources and it provides all the information to the user to find it to hand. At present "catalogues are of an increasing number and libraries are presently equipped with online facilities" (Pollard, Earnshaw, Lippincott-Schwartz, & Johnson, 2008). Those catalogues are called as Online Public Access Catalogue (OPAC) which provide the users online access to the library catalogue offering several other facilities such as online reservation, borrower status checking etc. (Ansari & Amita, 2008). The features provided through OPACs depend on the underlying library management softwares.

2.2 KOHA open source Integrated Library Management System

KOHA is the first open source Integrated Library Management System (ILMS) which was originated by Katipo Communications Limited with Horowhenua Library Trust in New Zealand in the year 1999 ("Koha :: Katipo Communications Ltd.," 2017). However, it is currently maintained by a dedicated group of software providers and library technological staff members all around the world. KOHA comprises a variety of attractive features. That is because it has disseminated around the world in a very short period of time (Kumar & Jasimudeen, 2012). Taking in to consideration the specific features and its growing community, Library of the University of Moratuwa transferred its services through KOHA system.

2.3 Distinctive features of KOHA-OPAC

KOHA-OPAC facilitates a search providing the complete bibliographic information of a specific resource including the number of copies available in the library, status of each copy indicating whether it is "Available", or "Not for Loan" or "Checked out", the collection belongs to, reserve/reference items etc. Further, KOHA-OPAC provides the facility to browse the shelf, if any body needs to trace the other resources available in the shelf. Online searches can be made on various KOHA databases, like Books, Journals, Thesis, CD-ROM. This KOHA-OPAC is also capable of providing links to external full-text indexes, databases, and e-journals on the Internet (Fattahi, 1997; Voon, 2003 as cited in Kumar & Vohra, 2013). Also, user can easily

check the items borrowed from the library under his/her name, due date, fine etc. via Web OPAC account log-in (Pollard et al., 2008).

2.4 Library at the University of Moratuwa

University of Moratuwa is a technical university and it consists of four faculties and an institution. i.e. the faculty of Engineering, Architecture, Information Technology, Postgraduate and Institute of Technology. The University of Moratuwa currently consists of approximately 3950 undergraduate students, 815 postgraduate students and 290 academic staff members and 950 students in the Institute of Technology University of Moratuwa (ITUM). The university comprises a main library which caters to all four faculties and the ITUM. The Library is committed towards providing access to both printed and electronic resources for its patrons in supporting research and curricula. Computers and computer applications have been widely introduced within the library in addition to the Integrated Library Management System (LibSys 4) initiated in year 2000. Over the years, the library has been making provision to plenty of online services to its users including OPAC which was based on LibSys. However, the library system was transferred to KOHA open source Integrated Library Management System in 2015, and all data and services were migrated to KOHA and now it fully functions with KOHA.

3. Literature Review

OPAC tool for accessing library resources is not a relatively new innovation, and it has been used in libraries of the developed world since 1970s (Kumar & Vohra, 2013). Further, it has been developed over the last four decades with various features and interfaces according to the software package use. Therefore, a number of studies have been done on OPACs; preference for OPAC, its usage, how to use it and user perceptions all over the world and studies done during the last ten years were reviewed for the purpose.

Ansari & Amita (2008) found that a majority of the users preferred to OPAC for their search under the study done (both university and special) in New Delhi. However, studies found that OPAC users tend to do simple searches using keywords, author names, and exact titles (Ariyapala & Edzan, 2002; Villén-Rueda, Senso, & de Moya-Anegón, 2007). This has further been confirmed by the study done by Sridhar (2004) under the study on "User behaviour on OPAC at the ISRO Satellite Centre Library in Bangalore, India" and compared it with

the findings of a study on card catalogue usage, of the same library, conducted 17 years ago. The study revealed that searches by exact title had substantially increased from 8 per cent on the card catalogue to 38.3 per cent on the OPAC. Subject searches dropped substantially from 54.2 per cent in the case of the card catalogue to almost half at 30.7 per cent in the OPAC.

However, the majority of researchers revealed that users have underutilized the advanced features beyond the Boolean operators or mechanisms for expert searches in OPAC (Abdullah, 2000; Ansari & Amita, 2008). Malliari & Kyriaki Manessi (2007) highlighted that users tend to make mistakes in the use of OPAC because of this underutilization. Some researched the factors that do not compel the heavy use of advanced search facilities provided through OPAC. Oduwole, Oyesiku, & Labulo (2002) in their study at the University of Agriculture, Abeokuta, found that the basic IT skills will be useful at first to equip them with the ability to access appropriate information retrieval. Also, Markey (2007) reported that a minimum basic skill was required to search an OPAC, tending not to use all the facilities and features offered by OPACs. However, Kani-Zabihi, Ghinea, & Chen (2008) reported that regardless of user's information technology background, their expectations of the functionality of OPACs were the same because users continued to expect OPACs also to facilitate easier ways to achieve their tasks.

Moreover, many researchers found that the library instruction and user oriented education programs conducted through libraries on the use and retrieval of information from the OPAC are very advantageous on successful use of OPACs (Novotny & Cahoy, 2006; Malliari & Kyriaki-Manessi, 2007; Mulla & Chandrashekara, 2009). Mulla & Chandrashekara (2009), who focused on the libraries of Engineering Colleges in Karnataka State, revealed that this was largely due to a marked lack of awareness among the users. Further, they advocated that user-friendliness of the OPAC may also be an important reason to maximize its use. Also, many studies have ascertained that users experience difficulties in using OPACs (Willson & Given, 2010) as OPACs tend to create complexity for users.

Under the study conducted in Alexander Technological Educational Institution of Thessaloniki, Greece by Malliari & Kyriaki-Manessi (2007) highlighted the fact that the changes in OPAC interface had a positive impact on the users and their attitude towards usage. That

was a positive point to the UoM since the OPAC has been changed recently with KOHA and very few study conducted in the developing country context like Sri Lanka. This is indicative of a research gap with regard to the use of OPAC in a university library.

4. Research problem

LibSys (version 4) which is the former used library software in the UoM is a commercial software and it does not support any of the web 2.0 features. The UoM library moved to the open source KOHA library management system with the opinion to entertain the advanced technological features. The KOHA system allows multi-dimensional searches providing as many access points with vast capacities and capabilities for advanced searching facilities as compared to the traditional card-based catalogue search options and OPACs in other library software. Moreover, KOHA-OPAC is smart with a great flexibility and numerous varied options to users, and time consumption is lesser than other systems. Therefore, the UoM OPAC which is one of the eye catching services of the library was customized to be more attractive to its users. With this new transformation, it was observed that the usage of the OPAC is growing up. These circumstances raised the problem why the users have intended to regular using OPAC. Therefore, the study is an attempt to evaluate user perceptions towards the newly designed KOHA-OPAC system in UoM to provide useful information for ensuring efficient use of OPACs in academic library context.

5. Purpose of the study

The main purpose of the study is to evaluate user perceptions towards the newly migrated OPAC service via KOHA system to the Library of the University of Moratuwa.

The specific objectives of the study are,

1. To examine the participation for user education programs conducted by the library
2. To examine the use of OPAC
3. To find out the awareness of changing the OPAC of the library
4. To examine the user perceptions on the services provided through newly introduced OPAC

6. Research Design

The study employed the survey research strategy using a structured questionnaire which was meticulously prepared to gather information on various parameters after having a rigorous review on literature. The random sample comprised 355 users who are the undergraduates of the UoM. The study was restricted to second, third and fourth year undergraduate students in each faculty and the first year students were not considered for the study, as they have entered to the university recently.

The study applied the proportionately stratified random sampling method to determine a representative sample for each faculty. This representative sample was taken on the basis of the Krejcie & Morgan (1970) table for determining sample size.

The data was collected from February to March 2016 using the online questionnaire. They were analyzed using SPSS (version 16) statistical package, the cross-tabulations, bar and pie charts were equipped to present the data. To find out the association of user awareness in relation to geographical data, the Chi-square test was used and a level of statistical significance (p) of less than 0.05 was adopted.

7. Results and discussion

The overall response rate was 59.71% (212 students have responded out of 355).

7.1 Demographic information of the respondents

Among 212 respondents, on the basis of their user category, 91 (42.9 %), 78 (36.8 %) and 43 (20.3 %), respectively, were architecture, engineering and IT students. According to year of study, there were 84 (39.6 %) respondents belonging to 2nd year, 75 (35.4 %) respondents belonging to 3rd year and 53 (20.3 %) respondents belonging to 4th year. Gender-wise representation showed 112 (52.8 %) male and 100 (47.2 %) female students. This clearly described that there was more architecture (42.9%) students and comparatively low IT students (20.3%) among the responders.

Table 7.1.1: Background information of respondents

Demographic Factor		No. of responders	%
Faculty	Architecture	91	42.9
	Engineering	78	36.8
	IT	43	20.3
Year of Study	2 nd Year	84	39.6
	3 rd Year	75	35.4
	4 th Year	53	25.0
Gender	Male	112	52.8
	Female	100	47.2

7.2 Participation for user education programs conducted by the library

Table 7.2.1 shows that more than 90% of architecture and engineering students participated any kind of library orientation programme, but comparatively low in the IT students' participation. The Pearson Chi-Square values (value:6.093, df:2, sig. value:0.048) also concluded that there was significant difference among the faculty, but there is no evidence to say that there is a significant difference within the year of study and gender (Pearson Chi-Square are 0.999 and 0.432) for participating the library orientation programme. However, an overall majority i.e. 90% of students have participated in the library orientation programme.

Table 7.2.1: Attend any library orientation programme

Faculty	Attend any library orientation programme		Total
	No	Yes	
Architecture	5	85	90
Engineering	5.6%	94.4%	100.0%
	7	71	78
IT	9.0%	91.0%	100.0%
	8	34	42
Total	19.0%	81.0%	100.0%
	20	190	210
	9.5%	90.5%	100.0%

7.3 Use of OPAC

Table 7.3.1 illustrates that architecture (83.1%) and engineering (83.1%) students access the library OPAC more than IT (64.3%) students. Values of the Pearson Chi-square test (value:7.260, df:2, sig. value:0.027) also shows there is a significant difference within the faculty for accessing library OPAC, but there is no evidence to say there is a significant difference within the year of study and gender (Pearson Chi-Square are 0.742 and 0.615). 79% of the overall students' population have accessed the library OPAC.

Table 7.3.1: Access to library OPAC

Faculty	Access library OPAC		Total
	No	Yes	
Architecture	15	74	89
	16.90%	83.10%	100.00%
Engineering	13	64	77
	16.90%	83.10%	100.00%
IT	15	27	42
	35.70%	64.30%	100.00%
Total	43	165	208
	20.70%	79.30%	100.00%

7.4 Awareness of changing the OPAC of the library

Table 7.4.1 describes the student awareness of OPAC changed by year of study. Table 7.4.1 reveals that very few students (37%) were aware of the changes of OPAC, but more 4th year students (52.8%) were aware of the OPAC changes. The Pearson chi-square values (value:15.679, df:2, sig. value:0.000) also revealed that there is a significant difference among the year of study.

Table 7.4.1: Awareness of OPAC has changed

Year of study	Awareness of OPAC changed		Total
	No	Yes	
2nd year	66	18	84
	78.60%	21.40%	100.00%
3rd year	42	32	74
	56.80%	43.20%	100.00%
4th year	25	28	53
	47.20%	52.80%	100.00%
Total	133	78	211
	63.00%	37.00%	100.00%

When the students who were aware of the OPAC changed considered, the following pie chart (Figure 7.4.1) indicates the perception of both OPAC systems (new KOHA and old LibSys). It clearly shows most of the students (68.42%) prefer the KOHA system is good.

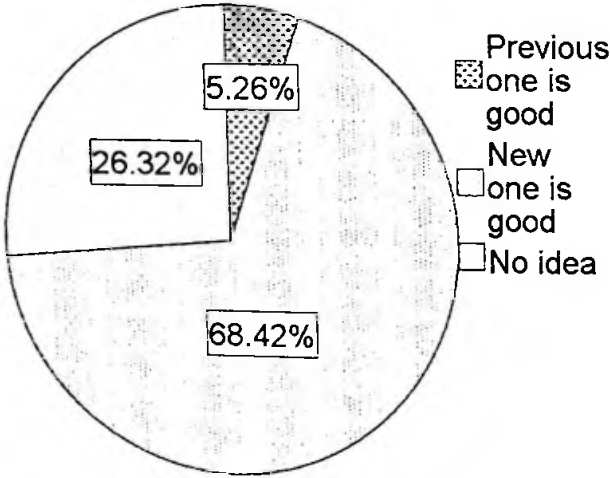


Figure7.4.1: Perception of both systems

7.5 User perceptions on the services provided through the newly introduced OPAC

Figure 7.5.1 shows the perception of the users' convenience and inconvenience in using the new OPAC. It shows more than 50% of students believe the novel OPAC is convenient or more convenient to use.

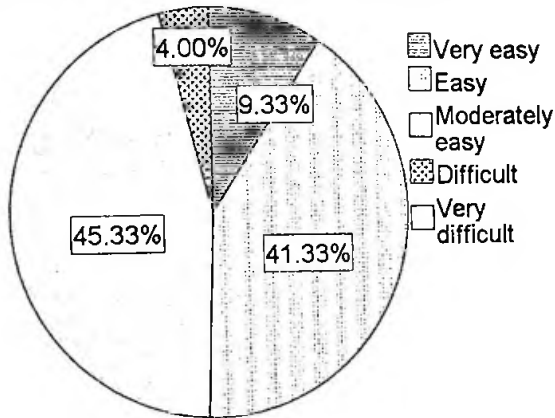


Figure 7.5.1: Easy or difficult to use new OPAC

According to the table 7.5.1, it shows that mean values of all the statements are greater than three. Therefore, it reveals that the following factors are not mandatory in using the new OPAC and without any prior knowledge of using new OPAC can be accessed.

Table 7.5.1: Difficulties in using OPAC

	Strongly Agree (1)	Agree (2)	Neutral (3)	Disagree (4)	Strongly Disagree (5)	Total	Mean	Std. Deviation
Never used an OPAC facility before	10 (9.0%)	18 (16.2%)	32 (28.8%)	32 (28.8%)	19 (17.1%)	111 (100%)	3.29	1.194
Language difficulty	0 (0.0%)	6 (95.6%)	31 (29.0%)	50 (46.7%)	20 (18.7%)	107 (100%)	3.79	0.813
Instructions in OPAC are not clear	6 (5.6%)	25 (23.1%)	29 (26.9%)	43 (39.8%)	5 (4.6%)	108 (100%)	3.15	1.012
No guidance given before use	8 (7.3%)	25 (22.9%)	39 (35.8%)	31 (28.4%)	6 (5.5%)	109 (100%)	3.02	1.018

Table 7.5.2 describes the reasons for using OPAC easily. The mean value of all the factors are less than 2.5 and this implies that most of the students agree or strongly agree of the following statements in the table 7.5.2. Results of the study has proved that when someone is experienced in using any kind of OPAC, that experience, clear guidelines and instruction will enable them to handle the new OPAC comfortably.

Table 7.5.2: Reasons for convenient usage of OPAC.

	Strongly Agree (1)	Agree (2)	Neutral (3)	Disagree (4)	Strongly Disagree (5)	Total	Mean	Std. Deviation
Used OPAC facilities before	23 (21.5%)	54 (50.5%)	21 (19.6%)	6 (5.6%)	3 (2.8%)	107 (100%)	2.18	0.93
Instructions in OPAC are clear	9 (8.3%)	70 (64.2%)	24 (22.0%)	5 (4.6%)	1 (0.9%)	109 (100%)	2.26	0.712
Guidance given before use	6 (5.6%)	55 (50.9%)	38 (35.2%)	8 (7.4%)	1 (0.9%)	108 (100%)	2.47	0.755

The way of the learners using OPAC is described in the table 7.5.3. It shows that majority of the students (54.9%) have learned new OPAC by themselves.

Table 7.5.3: Learn to use the OPAC

	Faculty			Total
	Architecture	Engineering	IT	
From library staff	20 28.6%	10 18.2%	5 17.9%	35 22.9%
Learned OPAC by themselves	37 52.9%	30 54.5%	17 60.7%	84 54.9%
From printed instructions	15 21.4%	19 34.5%	3 10.7%	37 24.2%
From friends	22 31.4%	16 29.1%	8 28.6%	46 30.1%
Through formal library instruction programme	19 27.1%	8 14.5%	4 14.3%	31 20.3%

Table 7.5.4 shows search perception about new library OPAC and all mean value of each statement are less than 2.6. This results show that most of the student agree or strongly agree with all statements. Also more than 74% of students agree (or strongly agree) "It was easy to use the library OPAC for whatever I wanted to search" and "Overall, this library OPAC was helpful in assisting me to search the documents effectively".

Table 7.5.4: Search Perceptions about Library OPAC

	Strongly Agree (1)	Agree (2)	Neutral (3)	Disagree (4)	Strongly Disagree (5)	Total	Mean	Std. Deviation
It was easy to use the library OPAC for whatever I wanted to search	16 (13.0%)	76 (61.8%)	23 (18.7%)	7 (5.7%)	1 (0.8%)	123 (100%)	2.2	0.765
Overall, this library OPAC was helpful in assisting me to search the documents effectively	19 (15.2%)	77 (61.6%)	25 (20.0%)	4 (3.2%)	0 (0.0%)	125 (100%)	2.11	0.686
It would take a great deal of effort and practice for me to learn to use this library OPAC with proficiency	8 (6.5%)	53 (43.1%)	46 (37.4%)	12 (9.8%)	4 (3.3%)	123 (100%)	2.6	0.875
It was easy to continue the search to find additional books on the subject	20 (16.3%)	49 (39.8%)	44 (35.8%)	10 (8.1%)	0 (0.0%)	123 (100%)	2.36	0.851
It was easy to read that display to find specific information about the book(s)	15 (12.5%)	67 (55.8%)	31 (25.8%)	6 (5.0%)	1 (0.8%)	120 (100%)	2.26	0.772

Figure 7.5.2 shows that perception of the students regarding the self-services provided by new OPAC system. It shows majority of the students (more than 83%) believe in self-service which is provided by the new system is convenient or convenient to a certain degree.

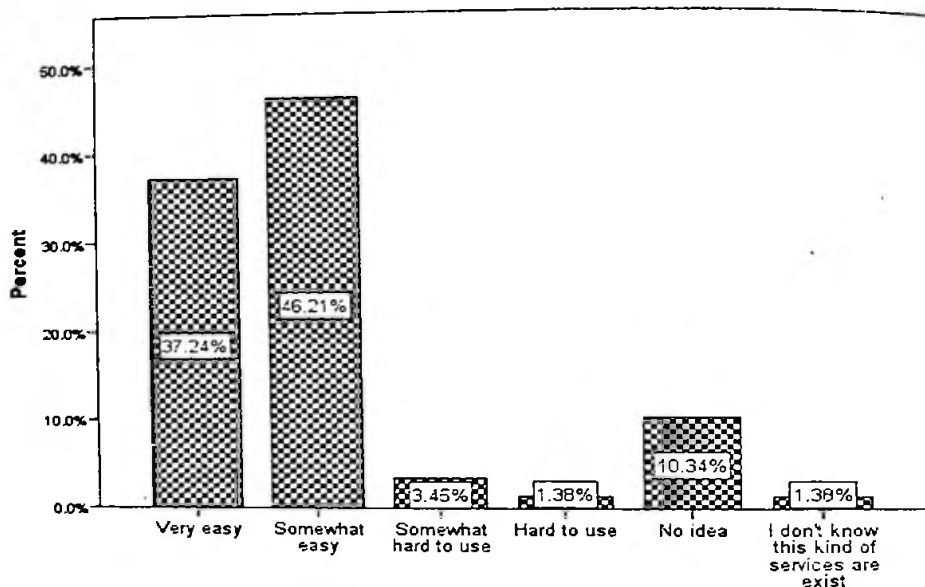


Figure 7.5.2: Perception of how easy it is for patrons to make self-service

8. Conclusions

In this study the library users' perception and awareness towards the use of the new web OPAC and satisfaction level of the services were investigated. According to the findings, IT students' participation of the library orientation programme is comparatively low with other two faculty students. Also their OPAC usage (64.3%) is lower than others (more than 83%). It revealed that very few students (37%) were aware of the changes of OPAC. But more 4th year students (52.8%) were aware of the OPAC changes. During that time the library informed the patrons, the changes of OPAC by email and displaying notices in the notice board. This revealed that the methods introduced are not effective. The student who has an awareness on OPAC, has clearly mentioned (68.42%) that new OPAC (KOHA) is productive and more than 50% of students believe new OPAC can be used easily or very easily. Also if someone has an experience using any kind of OPAC, it helps to use the new one easily. Clear guide lines and instructions are helpful for handling the new OPAC and also mention (54.9%) they can learn new OPAC system by themselves. Most of the (more than 74%) students agree (or

strongly agree) "It was easy to use the library OPAC for whatever I wanted to search" and "Overall, this library OPAC was helpful in assisting me to search the documents effectively". Also it reveals that most of the students (more than 83%) believe self-service which was provided by new system is very easy or somewhat easy. According to the above facts the new OPAC (KOHA) system is more user-friendly and efficient than the previous one.

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