

User Satisfaction Survey of University Library Websites in Myanmar

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Abstract:- Library websites typically provides databases and various types of information materials. It allows users to search library catalogs, journal articles through unique searching interfaces. This research survey user's satisfaction with access university websites in Myanmar. The survey aims to evaluate the university library websites and reveal the level of users' satisfaction for using these websites. The research was conducted by using survey methods. A structured questionnaire was distributed to the focused samples. This research focused on six university library websites (ULW) in Myanmar: University of Yangon, Universities' Central Library, University of Computer Studies Yangon, Yangon University of Foreign Languages, East Yangon University, and Dagon University. The survey analyzed the effectiveness and efficiency of library website usage in Myanmar based on the respondents of different end-users. This research revealed current situation of ULW in Myanmar. The findings of this study demonstrated the usage frequency, satisfaction, skillfulness, and convenience of ULW in Myanmar which provides a new perspective to improve library website services further. The survey recommended improvement of the esthetic interface of the University Library Websites to increase the level of satisfaction of users.

Keyword:- Myanmar University Library, University Library Websites, User Perspective, Inexperienced users, User Satisfaction.

I. INTRODUCTION

As the Internet technology are gradually developing in the world to disseminate the information resources for users, the website of an organization is trying to serve as a virtual image for their organization to perfect easily access the information resource by users with the development of information technology. A website could provide the various information for all types of users during the shortest time from their own website. Therefore, the importance of websites has been fast in technology environment among the information seeking of users, organization need to consider about their institutional website more develop, attractive as well as the content quality of website continuously update by performing for website users [1]. Consequently, websites are considered to attach with the libraries by professionals. Moreover, institutional websites are attaching to show the performance of activities with their universities websites and

libraries such as E-library, digital library by providing e-resources, database, online catalogues and online reference services through their own university website. University Library Websites serves users for their academic tasks by providing relevant information resources and services to meet users' information requirements. These services are reliable and authority for users by accessing e-resources, database, journals, articles and catalogues through their university websites.

Library website services offers online access to their resources and services thus, making the library websites more appealing to users. According to many studies of developing countries' library websites situation, In COMSATS Institute of Information Technology (CIIT) in Pakistan, users were passionate with library website services providing features such as pedagogical resources, quality of the information provided through websites, understandable graphics and text, which could be accessed globally [2].

Mairaj [3] recommended that progressive library websites should be used in Pakistan universities, and librarians need to adopt specific library marketing strategies to make the websites widely used by users. Therefore, librarians should manage social media web pages such as Facebook, Instagram, and others to post regularly e-resources, training programmed to access users as general awareness-raising and advocacy [2, 4, 5].

Library automation systems in Pakistan was started in the mid of the 1980s, and library websites was developed in the late 1990s. Even though the library websites developed early, other than developing countries, only a few libraries in Pakistan can access library website services through institutional websites. Sheikh et al [2] suggested that open-access resources from direct links such as DOJA, OARD, DOAB, which can be available from website data analysis software SPSS and EViews at CIIT of Islamabad university website in Pakistan. On the other hand, the implementation of web 2.0 on the application of academic library websites in Southeast Asia needs to use friendly and did not access widely by users and some academic libraries of ASEAN developing countries [5].

The web pages of university libraries have various designs, but it is necessary for these websites to follow a certain framework in their design based on their users, which increases the need for the evaluation of these website.

Myanmar started using computers around 1970s. The Universities' Computer Centre (UCC), which has been transformed into UCSY, has first installed a computer with United Nations' aid funded by the project [6].

The development of library websites had been started in the 1990s. Above 500 e-learning centers had been set up for the universities in Myanmar after that [7]. Although The services of online and Internet had been begun in Myanmar since 2003 [7]. There was no development situation in the usage of library website services and were not researched by any scholar in Myanmar and library website was began around 2013 with the aid of the e-library Myanmar Project. Moreover, many librarians were limited with updated information and facilities by the international community before 2011. The total number of universities in Myanmar was 164, of which 150 universities have not yet access to the Internet. Moreover, the bandwidth of a small university was very weak [4]. Therefore, this research, library website services usage compared with other developing countries was significantly delayed and the most less developed in library website [4]. Nevertheless, many librarians were updated with information and facilities by the international community before 2011. On the other hand, library system is transforming to be electronic library. The services of online and Internet began in 2003 in Myanmar [7]. However, the development of university library websites is not yet improved, and any LIS program detail about library websites was not available until 2013 in Myanmar [6].

In e-library system, library website is essential component. Thus, library websites are needed to evaluate to perform e-library system. The websites of university libraries play an important role in providing the necessary services for their users. These websites not only allow the users to access different library resources, but also provide them with the necessary guidance in order to use the information. The study survey investigated satisfaction regarding the quality of websites and the users' opinion that improvements were necessary for university website.

Currently, the development of websites in Myanmar is gaining importance as a platform for application. Many university libraries have developed their website While the other universities supply inactive web pages with essential information about the library resources, library profile, library, staff, and services. Some universities are yet to develop their websites. On the other hand, several library web pages offer sufficient information and services about the library, such as online public access catalogue (OPAC), electronic resources, databases, peer-reviewed journals, university intuitional repository, reference services, union catalogue, individual access database, and then course service, etc.

Recently, Myanmar, mounting studies have been conducted to analyze information communication technology (ICT) developments and library websites in Myanmar [4]–[7]. However, no user perceptible study to investigate the application of ULWs in Myanmar has been reported till date In Myanmar, library websites' development is slow, and most

users are not aware these library websites can offer information and database services. According to, the total number of universities in Myanmar was 164 but most of them have not yet access to the Internet, so that this research selected to study only 6 universities about ULW in Myanmar. Moreover, despite the availability of ULW services, undergraduate students rarely use ULW. The effectiveness and efficiency of ULW measured by user's satisfaction, convenience and skillfulness of their ULW usage by conducting one way ANOVA of SPSS. The effectiveness of library websites meets the requirements of users; comforts, facilitates and easily access the navigation of e-resources through their own institutional websites by providing scholarly and educational web-based resources. This study aims to analyze the impact of the ULWs of Myanmar. For this purpose, a questionnaire-based user satisfaction of ULWs in Myanmar was evaluated.

1.1 Research Question

The general research question is to evaluate the level of user's skillfulness, satisfaction and convenience of university library websites in Myanmar from a user's survey perceptible? To shield more on light the above general research question, specific questions are the followings.

- What is the level of user' satisfaction on university websites in Myanmar?
- What is the level of users' skillfulness for using university library website among the six universities in Myanmar?
- Which kinds of information are the most attractive on library website?
- How does library websites impact on university students?

1.2 Objectives of the Research

The main objective of this research is to evaluate the quality of university library websites in Myanmar. There are some of objectives to do the study. They are as follow:

- To know the level of user' satisfaction on university websites in Myanmar
- To identify evaluative criteria to improve university website
- To analyze the level of user's skillfulness, convenience, and satisfaction of library users on library websites facilities, database, resources
- To assess the utilization of university library website by university students with their educational level
- To suggest the ways of accessing library website

1.3 Research Outcomes

The result of the survey shows current status of usability evaluations of university websites in Myanmar. Based on the findings, the conditions of university library websites can be identified. And then, the survey can suggest ways how to improve website usability, make it more comfortable and easier for users.

II. SCOPE OF THE RESEARCH

The study was limited to the six select university library websites in Myanmar. They are University of Yangon, Universities' Central Library, University of Computer Studies Yangon, Yangon University of Foreign Languages, East Yangon University, and Dagon University. Based on the evaluation criteria such as currency, accuracy, relevance, organization and structure, presentation, URL maintenance and special features, the research identifies university websites.

Table of University Websites

S/N	Name of Universities	Website Address
1	University of Yangon	http://www.uy.edu.mm/
2	Universities' Central Library	http://uclmyanmar.org/
3	University of Computer Studies	http://www.ucsy.edu.mm/
4	Yangon University of Foreign Language	https://www.yufl.edu.mm/demo/
5	Dagon University	http://www.dagonuniverity.edu.mm/
6	East Yangon University	http://www.eyu.edu.mm/

2.1 Research Method

The research was conducted by using survey Research design. The necessary data was collected through survey questionnaire. The study distributed questionnaire to target group randomly. The resurvey distributed a total of 600 questionnaires in 6 universities, but a total of 516 valid questionnaires were returned: YU (91) respondents, UCL (87) respondents, UCSY (86) respondents, DU (90) respondents, YUFL (81) respondents, and then EYU (81) respondents respectively. The questionnaire was divided into 19 items. Participants' demographic data were categorized by their educational level and specialization.

The first step of the data collection in this research was undertaken through a sample Yangon University Library pilot study. By adopting this survey method, a librarian in each university library is required to collect survey forms from respondents. The total number of respondents was 516 users from six different universities. The data collection period was from April 2020 to June 2020. All six university libraries are kinds of academic libraries and under the Ministry of Education, and all are located at Yangon City in Myanmar, respectively. Among them, universities' central library is one of the affiliations of the whole country of universities and mostly common by many users.

The obtained data through questionnaire were analyzed by SPSS software. The data analysis had been done by descriptive statistics (percent, frequency, average, mean, standard deviation and Cross-tabulation). And then, the research demonstrated graph to evaluate the gathered data. The overall research questions were analyzed through One-Way ANOVA, Independent Sample T-test, including the user's major, qualification, designation, university names, with questions and without questions and their library website usage level.

III. LITERATURE REVIEW

There are many research papers studied on library websites. The results of these researches suggested and gave guidelines for university library websites. The literature review on library websites provides results and new findings of many scholars researched from various viewpoints.

Hammill [8] conducted Florida International University (FIU) libraries based on quantitative and qualitative methods. The research pointed out that 32% of users were skilled, and 53% of users were not skilled in the library website of information literacy. The study compared first-year students with information literacy to students with no information literacy.

Pauline Adeniran's article entitled "User satisfaction with academic libraries services: Academic staff and students' perspectives" examined private universities in Nigeria. It explored the relationship between service quality and users' satisfaction at Redeemer's University. The author revealed that the population of academic staff and students, students were most accessed the library; the College of Management Sciences had the highest frequency of use and users were satisfied with the services of the library [9].

Wu, Chung-Min, et al. did a research paper entitled "A model for assessing the service quality of university library websites." The research revealed that the measure for assessing the service quality of library websites from university students' perspectives. The finding demonstrated that Analytic Network Process (ANP) approached by employing (i) generate the priority weights of each criterion; (ii) measure the service quality of university library websites. In the paper, 12 web-based service measures were conducted according to 3144 university students' perspectives based on fuzzy Delphi method. According to their findings, among the respondents of 3144, 1148 respondents (36.51%) were males, 1996 respondents (63.49%) were female, graduate school level or above were about 19% respondents, 57 respondents (1.81%) access the library website more than 20 times per month and 7.63% of respondents used library website above 5 hours per week. The research pointed out that a university library website should serve the service quality of library websites, user's preference of searching information, accurate information of availability website, update information, display of the relevant content of each item, and downloading speed. They recommended that university websites should perform more effort on use of their websites for finding information to meet the requirements of users [10].

P. Khaola and M. Mabilikoane surveyed a research "Perception of library service quality, satisfaction and frequency of use of library resources". Users' perception consists of multiple constructs from various perspectives, such as effectiveness, efficiency, satisfaction, skillfulness, library services quality, and library resource frequency [11]. The authors identified library service quality, satisfaction, and frequency of library resource usage based on the LibQUALAL (+TM) method. The study showed that library

resource usage was not a relationship between satisfaction level and frequency of library resource usage. However, service quality and satisfaction, service and satisfaction level by effect, the library as a place and satisfaction, information control, and satisfaction were strong relationships. It was done by quantitative method. It revealed the only correlation between service quality of library resources and users' satisfaction. The main advantage of using the websites is directly related to the library's development, information efficiency, and the users' attention.

Manuel and et al. [12] surveyed East Midlands University Libraries. This survey also pointed out that some of the library websites have not possessed their own decision for their development because university disciplines have been influenced by their setting and top-level decision making through university web group. Library websites contain a sophisticated mechanism for retrieving information and services for their users. Library websites are giving up-to-date information and improving quality of service information for their user with a strategic direction to develop in their image. The librarians could be encouraged inexperienced users by messaging of the effectiveness of their library website. The study also revealed that these library websites' main issues: users were not aware of the offer of library website services. Some university library websites of institutions and organizations are trying to develop their websites with the effort made by specialists or outside agencies. However, most university library websites are not updated yet regularly and cannot give updated information resources to the users.

Bremner and Naidoo [13] suggested that a website enable the users to retrieve information from anywhere. Besides, library website structures provide convenience for users, such as the consistency and reusability of systematic information. Library websites connect the university community and the demand of users. In other words, librarians' information literacy and service quality of library websites are not directly concerned only the users' need to use the library website.

Chauhan and Bhatt [14] observed in Ja Ypee University that the services benefited 36% (97) respondents. 15% (41) respondents reported that they received updated information on library services and collection, 30% (81) respondents confirmed that they never received any updated information of library. Moreover, information the users need is also essential to check day-to-day. Information communication technology, user behaviour on information needs and user's expectations will be continued as the priority of any library planning.

Xia [15] pointed out that librarians should consider all users' needs and provide the necessary information of the user, which helps support their needs. Each library can give them opportunities to acquire information retrieval skills and improve them from their studying and using the library. Meanwhile, students need to improve their competence by using libraries. So, significantly, library websites play an important role for all users. The library's website service also

needs the support of the library and the national education department to reach a higher level.

The academic library websites need to provide services to the main visitors of the website, and sometimes they need the help of designers with appropriate expertise and experience. Furthermore, it can satisfy users' demand [16].

Library websites are giving up-to-date information and improving their quality-of-service information for their user with a strategic direction to develop in their image. The librarians could encourage the inexperienced users by giving a message of the effectiveness of their library website. The study also revealed that these library websites' main issues were that users were not aware of library websites' services.

Mierzecka and Suminas [17] evaluated about University of Warsaw (Poland) and Vilnius University, which library website is mostly used and offered the best services from the users' perspective. Nowadays, information and communication technologies are affecting people's lives, especially in education such as academic libraries, it is necessary to provide users with correct and effective information. Academic libraries face challenges such as new technologies by attempting services to provide their users through library websites. Library websites have become an impact of library factors than traditional services by librarians.

Polger [18] suggested that the library website should be included user-understandable terms instead of jargon, because a user will be encountered library anxiety before entering the physical library. The librarians should try to explain about electronic journal and database of usefulness to the inexperienced users. The library website is a symbol of part for an experienced user. The library website not only retrieves database, electronic resources, and printed materials but also services to improve user's information need such as circulation, reserves, reference, library events, library hours, interlibrary library loan, policy information, necessary contact information, and up to date information to transfer the user at the right time.

This study focuses on users' perspectives of six universities library websites in Myanmar based on the data collected from various students and scholars: Hammill [8], Wu and et al. [10], Khaola and Maleshonaeand [11], Joo and et al. [19]. This study is likely to meet users' needs by using of surveyed six universities library websites of Yangon Region, Myanmar.

3.1 Background History of University Library Websites in Myanmar

A library website is a window for users to learn about an institution and university. Nevertheless, the challenges of the library situation in Myanmar have been reported by Nyein [4] at the 39th UKSG Annual Conference, Bournemouth, April 2016.

In the past years, cases of delay and challenges to the library website development were the following situations [4].

- The role of librarians and libraries has not been carefully considered for fifty years.
- With low network bandwidth and low power support, it is difficult for users to obtain a static IP address for each organization.
- The user only uses the Google search engine and has no innovative thinking about learning.
- The information literacy skills of some librarians and faculty are poor.
- Only a few libraries have high-quality books, and many books are destroyed and not up-to-date.
- The budget limits government agencies' support for library development.
- Out of 150 universities, mostly cannot use the Internet, and only a few universities have low bandwidth in Myanmar.

The image of ULW is becoming more visible by technology development. Moreover, every library has possessed on own website in other developed countries. Nevertheless, this research propose that institution universities manage the library website, and there were no particular library websites in Myanmar. The total number of universities is 164 universities. In this research, only six universities have library websites in the Ministry of Education such as University of Yangon, Dagon University, East Yangon University, University of Computer Science Yangon, Yangon University of Foreign Language, and Universities' Central Library.

Situation of University Library Websites is based on provision of the ICT infrastructure and human resources. Currently, libraries in Myanmar are trying to move from traditional library system to virtual library system. But they faced various issues such as information literacy, financial, human resources and so on. Librarians and their staff are trying to solve these problems.

Consequently, this research greatly impacted reality overcoming the difficult situations that concern using the Library Website in a developing country, Myanmar. Therefore, the main fundamental aspects of functions and marinating of a library website are verifying users' views and looking back on user needs. Currently, the move toward developing websites in Myanmar is growing, and some university libraries are developing their websites to some positive degree of use.

3.2 Data analysis

Many assignment methods have suggested the usability of ULW services to evaluate. According to the research questionnaires, the main was included opened. Closed-ended questionnaires such as frequency usage of ULW, essential features of ULW form users, prefer to use given database and resources, clear and understandable, easily of navigation by ULW, user exception for achieving the tasks, proficient of using ULW and the rate of ULW services (closed-ended

questionnaires) and then problem encounter, thoughts about ULW, talk about ULW services (opened end questionnaires), etc. The self-evaluative method will be conducted for the collection of data and service quality of the library website. Data analysis will be included the main areas such as comparison on users' satisfaction level of the university library website and major; comparison on user's convenience level of university library websites, problem and major; comparison on skillfulness of library websites usage by problem, user's skillfulness level of universities and major; library website usage by the university, number of most essential features of library website; database usage by the universities, comparison for skillfulness of users by qualification and designation.

IV. RESULTS

Similarly, the respondents of the result were illustrated by tables of SPSS.

Descriptive Statistics

According to result, the results show that 43.4% of respondents are in the field of Art, 48% in science. The results shown by university are YU (16.1%), UCL (15.4%), UCSY (15.2%), DU (16%), YUFL (14.4%) and EYU (14.4%). Thus, it can be said that users in science were more than users in art and users of YU were the most percentages among other universities.

Respondents by Majors

The result showed by respondents' major in each university. Under YU, users in art are equal to users in science. In UCL, users in art were more than users in science. For YUFL and EYU, users in art were more than users in science. Under DU, users in science were more than users in art. But, as UCSY is science university, all respondents are in the field of science See in Table 1.

Respondents by Qualification

The research studied respondents by their qualifications such as undergraduate, Master, PhD. According to result, undergraduate of EYU (8.7%) were the most in other universities, and users of Master in DU (11.4%) is the largest one. In YU, users of PhD (17.6%) is the most percentages See in Table 1.

Respondents by Types of Users

In this research, there are only four categories by users: students, teachers, staff and others. Others includes outsiders and researchers. The result showed that teachers (23.8%), Students (51.2%), Staff (10.5%) and others (6%) respectively in all universities See in Table 1.

Respondents by Database Usage

The research asked to know respondents' database usage for their needs. Their websites posted some of database such as EBSCO, Pro-Quest, JSTOR for their users. The survey shows that the highest numbers is employed by EYU (14.7%), and it was followed by YUFL (13%), UCL (12.6%), YU (12.2%), UCSY (11%). But DU was lowest (10.1%) respectively See in Table 1.

followed by YUFL (14%), EYU (9.5%), UCSY (9.1%), and YU (8.5%) respectively See in Table1.

Website Usages by Numbers of Items

The respondents were asked to identify numbers of items in their website use. In the websites, numbers of item in main menu are vary. But, according to the survey, respondents replied numbers of item within nine items for their using. According to the survey, the most of users utilized one item in their website. Under the one item usage, users in DU was the highest percentage (14.1%). It was

Frequency of Website Usage

The respondents were asked to their frequency of website use. The result showed that the majority of users utilized library website “sometimes”. Among the sometime users, users of DU showed the highest place (11.4%). The second place is EYU (9.3%). For daily users, users of UCSY was the first position (4.7%) See in Table 1.

Table 1. Statistics of each University by Major, Qualification, Designation, Database Usage, Number of Items and Frequency of Website Usage

		YU	UCL	UCSY	YUFL	DU	EYU	Total
Major	Art	7.9%	12.2%	0%	11.6%	7.0%	8.7%	47.5%
	Science	9.7%	4.7%	16.7%	4.1%	10.5%	7.0%	52.5%
	Total	17.6%	16.9%	16.7%	15.7%	17.4%	15.7%	100%
Qualification	Undergraduate	4.5%	4.5%	1.7%	7.0%	4.7%	8.7%	31%
	Master	9.1%	8.7%	9.7%	7.2%	11.4%	5.8%	51.9%
	Ph.D.	4.1%	3.7%	5.2%	1.6%	1.4%	1.2%	15.7%
	Total	17.6%	16.9%	16.7%	15.7%	17.4%	15.7%	100%
Designation	Teacher	5.0%	4.8%	7.8%	4.3%	1.9%	2.1%	26%
	Student	8.3%	6.0%	8.3%	8.5%	14.3%	10.5%	56%
	Staff	2.3%	3.3%	0.2%	1.7%	0.8%	3.1%	11.4%
	Others	1.9%	2.7%	0.4%	1.2%	0.4%	0%	6.6%
	Total	17.6%	16.9%	16.7%	15.7%	17.4%	15.7%	100%
No of Items	1	8.5%	9.1%	9.1%	14.0%	14.1%	9.5%	64.%
	2	1.7%	1.0%	5.4%	1.2%	2.1%	3.5%	14.9%
	3	2.9%	5.0%	1.9%	0.4%	1.0%	2.7%	14%
	4	3.1%	1.7%	0.2%	0.2%	0.2%	0.0%	5.4%
	5	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%
	9	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Total	17.6%	16.9%	16.7%	15.7%	17.4%	15.7%	100%
Database Usage	EBSCO	12.2%	12.6%	11.0%	13.0%	10.1%	14.7%	73.6%
	Pro-Quest	2.7%	1.2%	2.1%	0.8%	6.6%	0.6%	14%
	JSTOR	2.7%	3.1%	3.5%	1.9%	0.6%	0.4%	12.2%
	Other	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.2%
	Total	17.6%	16.9%	16.7%	15.7%	17.4%	15.7%	100%
Frequency of Website Use	Daily	1.2%	2.1%	4.7%	2.1%	2.5%	1.4%	14%
	2-3	3.3%	3.5%	3.3%	3.3%	2.9%	1.9%	18.2%
	3-4	1.4%	2.3%	0.4%	1.4%	0.0%	1.9%	7.4%
	Once	4.3%	1.4%	1.0%	1.6%	0.6%	1.2%	9.9%
	Sometimes	7.6%	7.6%	7.4%	7.4%	11.4%	9.3%	50.6%
	Total	17.6%	16.9%	16.7%	15.7%	17.4%	15.7%	100%

Library Website Used by Type of Users and Qualification

The survey analyzed use of library website by the respondents’ qualification and types of users. According to the data analysis, although students are the largest numbers of users, 31% of students utilized library website “sometimes” and only 5% are daily users. Regarding to educational qualification, the most of users are master degree holders. 8.3% of them used website daily and 25.4% used “sometime”. See in Table 2.

Table.2 Frequencies of Library Website Usage by Types of Users and Qualification

		Daily	2-3	3-4	Month	Sometimes	Total
Types of Users	Teacher	5.4%	4.8%	2.3%	1.6%	11.8%	26%
	Student	5.0%	9.5%	3.5%	7.0%	31.0%	56%
	Staff	2.9%	1.9%	1.0%	0.8%	4.8%	11.4%
	Others	0.6%	1.9%	0.6%	0.6%	2.9%	6.6%
	Total	14%	18.2%	7.4%	9.9%	50.6%	100%
Qualification	Undergraduate	1.2%	4.5%	2.5%	4.5%	18.4%	31.1%
	Master	8.3%	11.0%	2.7%	4.5%	25.4%	51.9%
	Ph. D	4.5%	2.7%	2.1%	1.0%	6.8%	17.1%
	Total	14%	18.2%	7.3%	10%	50.6%	100%

Notes: 2-3=2-3 times a week,3-4=3-4 times a week, Month= Once in a month and Som=Sometimes

Type of Problems Faced by University

Users faced some of problems while they are using website such as internet connection, cannot full-text download, not enough facility, off campus, technical and others' problems. The result showed that the most of users faced bad internet connection. Among them, 13.8% of users of UCSY encountered poor connection. 6.2% of users of UCL faced this problem. So, it can be said that internet connection of UCL is better than other universities. For downloading full texts, 2.3% of EYU users faced difficulties in downloading required data. But, 0.6% of DU users faced this problem. According to necessary facility, the most of users had not faced this problem. Thus, it can be said that there are enough facilities for website use. Regarding with problem of technology, 1.6% users in DU faced and followed by YU, UCL (0.8%), YUFL, EYU (0.2%). According to survey, YU, UCL, and EYU websites can be accessed from the outside of the campus but there are a few of problems by accessing the websites of UCSY, YUFL and DU from the outside of the campus See in table 3. Regarding the qualification level, 28.9% of master degree holders encountered with issue of connection, and it was followed by undergraduate and PhD degree holders (17.6% & 10.1%) respectively. Besides, among them, master students encountered with most of issues more than others See in table 3. When the survey studied types of users (students, teachers, staff and others), most of students complained the above issues See in table 3.

Table.3 Statistics of Users Faced with Problems by University, Qualification and Designation

		CON	NFD	NE	OC	NP	Tech	OP	Total
University	YU	9.5%	1.4%	0.0%	0.0%	5.4%	0.8%	0.6%	17.6%
	UCL	6.2%	1.2%	0.2%	0.0%	8.3%	0.8%	0.2%	16.9%
	UCSY	13.8%	0.8%	0.0%	0.6%	1.4%	0.0%	0.2%	16.7%
	YUFL	7.6%	1.7%	1.0%	0.2%	4.5%	0.2%	0.6%	15.7%
	DU	10.7%	0.6%	1.2%	0.2%	2.3%	1.6%	1.0%	17.4%
	EYU	8.9%	2.3%	0.2%	0.0%	3.1%	0.2%	1.0%	15.7%
	Total	56%	7.9%	2.5%	1.0%	25%	3.5%	3.5%	100%
Qualification	Un	17.6%	2.1%	1.0%	0.2%	8.3%	0.6%	1.2%	31%
	Master	28.9%	3.5%	1.6%	0.6%	13.4%	2.1%	1.9%	51.9%
	Ph.D.	10.1%	2.3%	0.0%	0.2%	3.3%	0.8%	0.4%	17.1%
	Total	56.6%	7.9%	2.5%	1.0%	25%	3.5%	3.5%	100%
Type of users	Teacher	16.5%	2.7%	0.0%	0.2%	4.3%	1.2%	1.2%	26%
	Student	32.6%	3.7%	2.3%	0.8%	12.8%	1.9%	1.9%	56%
	Staff	5.2%	1.2%	0.2%	0.0%	4.5%	0.2%	0.2%	11.4%
	Others	1.2%	0.4%	0.0%	0.0%	3.5%	0.2%	0.2%	6.6%
	Total	56.6%	7.9%	2.5%	1.0%	25%	3.5%	3.5%	100%

CON= connection, NFD= not full-text download, NE= not enough facility, OC=off campus, NP= no problem, TEC= Technical and OP= others' problems, Un=Undergraduate users

4.1 Inferential statistics

Differences of user's, skillfulness, satisfaction, and convenience by Major

To find the difference between user' skillfulness, satisfaction and convenience by user' major, the means and standard deviations were described in Table 4: 271 science and 245 arts. Moreover, the means and standard deviations of user' problem with and without were described to examine in user' skillfulness, satisfaction and convenience differences. Thereafter, the independent sample t-test was conducted for user' skillfulness, satisfaction and convenience level.

According to the results of Table 4, there was a significant difference in major by user' satisfaction. Users in science were significantly more than art user according to their mean scores and then user's skillfulness and convenience did not significantly differ in terms of major See in Table.4.

Differences of user's Skillfulness, satisfaction, convenience between users with and without Problem

To find the difference between user' skillfulness, satisfaction and convenience by user' problem, the means and standard deviations were described in Table 4: 387 with and 129 without. According to the results of Table 4, user 'skillfulness and convenience by user' problem significantly differed in terms of with and without problem and then user' satisfaction by user' problem did not significantly differ see in Table.4.

Table4. Differences of Skillfulness, Satisfaction and Convenience by Majors and Problems

DV	Major					User's Problem				
	Art (n=245)		Science (n=271)		t (1,514)	With (n=387)		Without (n=129)		t (1,514)
	M	SD	M	SD		M	SD	M	SD	
SK	2.60	.727	2.48	.693	-1.858	2.64	.673	2.22	.728	6.062***
SF	12.56	.984	12.76	.884	2.439*	12.69	.967	12.60	.842	.895
CV	4.91	.763	4.93	.714	0.303	4.65	.579	5.72	.559	0.067***

Note; SK = Skillfulness, SF =Satisfaction, CV= Convenience*p<0.05, ***p<0.001

Differences for the Skillfulness, Satisfaction and Convenience of users by universities

In order to find the difference for the Skillfulness, Satisfaction and Convenience of users by universities, the univariate analysis of variance (one-way ANOVA) was conducted. Firstly, the means and standard deviations for the Skillfulness, Satisfaction and Convenience of users by universities were described in Table 5.The univariate ANOVA and post hoc test were followed up to find the difference among universities groups.

The univariate ANOVA results (Table 5) depicted that Skillfulness of users for universities significantly differed (F(5, 510)= 9.200, p<.001).Likewise, from Satisfaction of users for universities significantly differed F(5,510)= 4.382 and Convenience of users for universities significantly differed F (5,510)=11.503, p<0.001.

According to Table 5, the results revealed that UCSY was significantly higher than other universities in user's skillfulness and satisfaction and then UCL was significantly higher than DU in convenience at 0.01level.

Table 5. Differences of Skillfulness, Satisfaction and Convenience by Universities

DV	YU (n=91)		UCL (n=87)		UCSY (n=86)		YUFL (n=81)		DU (n=90)		EYU (n=81)		F (5,510)
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	
SK	2.29	.779	2.46	.744	2.91 ^{ab}	.364	2.57	.821	2.63	.529	2.36 ^c	.763	9.200***
SF	12.47	1.302	12.48	.96	13.00 ^{ab}	.000	12.51	1.038	12.98 ^{abd}	.211	12.56 ^{ce}	1.129	6.660***
CV	5.05	0.705	5.09	0.830	4.87	0.480	4.94	0.827	4.76 ^c	0.659	4.80	0.828	11.503***

Note; YU = University of Yangon, UCL=Universities' Central Library, UCSY= University of Computer Studies, YUFL=Yangon University of Foreign Language, DU= Dagon University, EYU= East Yangon University*p<.05, **p<.01, ***p<.001.

- ^a Group differs statistically significantly from type (in a row) where ^b is indicated.
- ^b Group differs statistically significantly from type (in a row) where ^c is indicated.
- ^c Group differs statistically significantly from type (in a row) where ^d is indicated.
- ^d Group differs statistically significantly from type (in a row) where ^e is indicated.
- ^e Group differs statistically significantly from type (in a row) where ^f is indicated.

Differences for the Skillfulness, Satisfaction and Convenience of Users by Qualification

The univariate ANOVA results see in Table 6 depicted that Skillfulness of users for Qualification significantly differed (F (2, 513) = 9.745, p<.001). Likewise, from Satisfaction of users for Qualification significantly differed F (2,513) = 4.467 and Convenience of users for Qualification did not significantly differed F (2,513) =1.853, p<0.001.

According to Table 6, the results revealed that Ph.D. users were significantly higher than other Qualification in user' skillfulness, Master users were significantly higher than other Qualification in user' satisfaction and then convenience of users by Qualification did not significantly differ see in Table 6.

Table 6. Differences of Skillfulness, Satisfaction and Convenience by Users 'Qualification

DV	U (n=160)		M (n=268)		P (n=88)		F (2,513)
	M	SD	M	SD	M	SD	
SK	2.34	.736	2.59	.684	2.72 ^a	.667	9.745***
SF	12.9	1.182	12.76 ^a	.705	12.72	1.017	4.467*
CV	4.94	.724	4.96	.748	4.78	.718	1.853

Note; U = Undergraduate, M=Master, P= Ph.D., *p<.01, ***p<.001.

^a Group differs statistically significantly from type (in a row) where ^b is indicated.

^b Group differs statistically significantly from type (in a row) where ^c is indicated.

Differences of Skillfulness, Satisfaction and Convenience by Types of Users

The univariate ANOVA results see in Table 7 depicted that Skillfulness of users for Designation significantly differed (F (3, 512) = 12.698, p<.001). Likewise, from Satisfaction of users for Designation did not significantly differed F (3,512) = .680 and Convenience of users for Designation did not significantly differed F (3,512) =5.559, p<0.001.

According to Table 7, the results revealed that Teacher users were significantly higher than other in user' skillfulness. User' satisfaction by types of users did not significantly differ and then user 'convenience by types of users in other users and staff users were significantly higher than student users and teacher user see in Table 7.

Table7.Differences of Skillfulness, Satisfaction and Convenience by Type of Users

DV	T (n=134)		Stu (n=289)		Sta (n=59)		Oth(n=34)		F (3,512)
	M	SD	M	SD	M	SD	M	SD	
SK	2.81	.551	2.43 ^a	.679	2.63	.869	2.21 ^a	.880	12.698***
SF	12.66	.997	12.71	.893	12.62	1.072	12.62	.817	.680
CV	4.72	.810	4.96	.658	5.05 ^a	.775	5.15 ^a	.857	5.559***

T=Teacher, Stu= Student, Sta=Staff, Oth=Other, *p<.01, ***p<.001.

^a Group differs statistically significantly from type (in a row) where b is indicated.

^b Group differs statistically significantly from type (in a row) where c is indicated.

^c Group differs statistically significantly from type (in a row) where d is indicated.

Differences for the Skillfulness, Satisfaction and Convenience of users by Library Websites Usage

The univariate ANOVA results see in Table 8 depicted that Skillfulness of users for Library website usage were significantly differed (F (4, 511) = 10.550, p<.001). Likewise, from Satisfaction of users for Library website usage did not significantly differed F(4,511)= 1.501 and Convenience of users for Library website usage did not significantly differed F (4,511)=.695. According to Table 8, the results revealed that Daily users were significantly higher than sometimes and once in a month users in user' skillfulness. Satisfaction and Convenience for Library website usage did not significantly differ other group of Library website usage see in Table 8.

Table8. Differences of Skillfulness, Satisfaction and Convenience by University Library Website Usage

DV	D (n=72)		2-3 (n=94)		3-4 (n=38)		1 (n=51)		S (n=261)		F (4,511)
	M	SD	M	SD	M	SD	M	SD	M	SD	
SK	2.97	.691	2.60	.610	2.58	.683	2.29 ^a	.672	2.43 ^a	.713	10.550***
SF	12.86	.589	12.59	.944	12.45	1.058	12.65	.996	12.68	.987	1.501
CV	4.89	.519	4.98	.789	4.76	.883	4.98	.761	4.92	.742	.695

D=Daily, 2-3=2-3times a week, 3-4=3-4 times a week, 1= Once in a month, S=Sometimes, ***p<.001.

^a Group differs statistically significantly from type (in a row) where b is indicated.

^b Group differs statistically significantly from type (in a row) where c is indicated.

^c Group differs statistically significantly from type (in a row) where d is indicated.

V. FINDINGS

Overview of the results, there were no significantly differ in art and science users of YU. Art of UCL was significantly differ than science. Art of YUFL were significantly differ than science. Science users in DU were significantly differ than art. Art of users in EYU significantly differ than science. Concerning with user's qualification, there was significantly differ undergraduate in EYU, Master in DU. PhD. in YU were significantly differ than other universities. Under the types of users, students were significantly more than other types of users. For use of items in website, only one item was mostly used by all six universities. There was significantly differ in Database Usage by universities. EBSCO was mostly used and more attractive than other universities. Pro-Quest, JSTRO and others were less in six universities. There was significantly differ in frequency of website use. The most of users in all six universities utilized their website "sometimes users". But users who used 3-4 times in a week were the smallest one. Among the four types of users, students were the largest population. Master degree holders were more than other educational qualification. There was significantly differ in user's facing with problems among the six universities. The survey stated problems concerned with internet connection, downloading required data, accessing from remote area, technology, necessary devices and son on. Among these problems, most of users in all six universities encountered with internet connection. Users in UCSY was mostly encountered with this issue. But, the most of users in these universities can access their website from the outside of the campus. The survey showed that all six universities encountered with some of issues such as internet connection, full text downloading, facilities of devices and technologies. From the view of qualification level, there was no significantly differ in facing problems. Among them, master users mostly encountered with all types of problems. Under the types of users, most of students more encountered with problems than other types of users.

5.1 Discussion

Today, the number of university library websites is increasing. The university library websites may have extensive services in current by providing database information services such as OPAC, EBSCO, Union Catalog, University Intuitional Repository. Quality of library website is based on many factors such as provision of resources, functions, website design, accessing information. To upgrade library website, the websites are needed to evaluate by the surveying users' opinion and comments.

The criteria for evaluation of website includes area such as basic information about the library (services, event, hours, map, facilities, e-library) access to the electronic resources (EBSCO, Pro-Quest, JSTOR, and other electronic databases) guide to internet resources (free access, open access or subscribe database) and online services (e-mail, ask librarian, access individual database, union catalog, institution repository, and course service). According to the result of open-ended type in the questionnaire and comments of interviewee, it can be said that most of users gave comments

on internet connection to upgrade for downloading required data from the website.

The study revealed the level of user's satisfaction for accessing university library websites. The study covered only six universities in Myanmar. The results showed that user satisfaction of UCSY's library website is the highest. Therefore, it can be noted that the rest five university websites are needed to upgrade to meet user's needs.

Moreover, faculty members need to cultivate their students for library visit with the help of librarian. The librarians should provide users training, orientations about library services and resources. University libraries need to survive in an on-line environment where students can search their needs through their library websites. Librarians, library professionals and library staffs need to give more services about library marketing and promotional activities such as orientation programs and advertised through university library Facebook pages. Faculty professors and teachers need to enforce first-year students to use library websites. It was found that the essential sources of information for users to assignments, research from university library websites. Accordingly, interviews from YU and UCL users were more likely to read manual books, and only end-users were used the library websites for their research. At YUFL university, the users were more likely to use course services from their university library website, and these users come from different levels such as designation and academic role. At EYU and DU universities, the librarians give orientation programs for first-year students, especially inexperienced users, every academic year of the first semester.

Nevertheless, the survey points out that most of users have not awareness to access university library websites by undergraduate students. At UCSY university, the librarian usually gives training to their students every month. Users always use the library website for their assignments and research because almost all of their subjects deal with sophisticated technology, which is the main reason for encouraging them to read e-resources and with continual use of the Internet. Therefore, the results highlighted that the UCSY library website was the best among six university library websites. University of Computer Studies Yangon library website was used not only by undergraduate users but also Master and Ph.D. users. The Yangon University of Foreign Language was mostly used and known by all kinds of users because the university offers diploma programs for all kinds of users. Website of Universities Central Library is utilized by most of outsiders. Outside users mostly preferred universities' Central Library and undergraduate users mostly preferred universities' Central Library to read manual books.

5.2 Recommendation

Based on the findings of the survey, the research attempts to suggest fewer commendations which will help to creator of the university library website. According to the results, users' problem with and without were concluded that users also had skillfulness and convenience on library website and then satisfaction level did not concerned user' problem facing. Therefore, this research addressed to gain user's

satisfaction for using library website. Thus, sometime users will become daily users. The website should be updated on a regular basis. If any new service or product is launched, it must be highlighted on the front page of the site. Librarians and library professions should make user survey to meet their needs. This research reveals that most of users faced with internet connection. Thus, the research recommends that librarians should collaborate with responsible persons and company to improve internet connection. Furthermore, human resources or IT technicians should be recruited to maintain website design.

VI. CONCLUSION

Enhancing the effectiveness and efficiency of library website, quality service and user satisfaction are primary challenges. The most effective library website should consider users and their needs as a mission. Therefore, the main fundamental aspect of library websites functions services is to verify users' viewpoints and look back on their needs.

Based on the result of analysis and discussion, science users are more than art users. The highest numbers of users are from the University of Yangon while EYU has the lowest number of users. Master students mostly use library websites because of the requirement of doing their research from a challenging major. Among the types of users, the highest number of users are students. Moreover, faculty members and Ph.D. candidates and daily users are skillful in using website. Users in science and master degree holders were satisfied with their websites. Other users and staff are most convenient at using the library website. It is found that the library website of UCSY is better than others because this university is Computer Science University. This users in this university are experts in information literacy and they are always learning information technology and are always in-touch with computers. Users who frequently used the Internet and library were found as frequent users of the library websites. Library allows to use computers at the significant places to access its websites.

This research also reveals that Ph.D. candidates and Master degree holders are more skillful than users in undergraduate. Because undergraduates are lack of library experience and not eager to go to the library. Accordingly, they are needed to train from librarians how to use library websites. The library website should include understandable terms not jargon for users. The librarians should provide user training concerned with information literacy. The library website provides not only database, electronic resources, and printed materials but also services to improve user's information need such as circulation, reserves, reference, library events, library hours, interlibrary library loan, policy information, necessary contact information, and up to date information to transfer the user at the right time [17]. University library website should be attractive to be awareness of library resources and services. Moreover, university library websites offer various electronic information resources and services to its community on and off-campus and users worldwide. Based on the finding of this

research, the research supports to improve library websites in Myanmar.

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