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**"Innovative Information Management : Towards a
Reading Nation"**

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Innovative Information Management: Towards a Reading Nation

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Institutional Repository Access Policy in Public University Libraries in Central Java, Indonesia

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ABSTRACT

This article discusses the repository as a service access policy developed and implemented in public university libraries, Central Java, which still protects intellectual work's rights. University-led policies, especially regarding the access of repository collection, becomes very important in this era, as concerning scientific works of academicians and the rights of one's intellectual work. This study aimed to analyze the policies, implementation barriers, and stakeholders' views on accessing the repository imposed in Central Java public university libraries. Samples were taken from ten libraries State University (PTN) in the province of Central Java, Indonesia. Qualitative research method using descriptive, by collecting data through questionnaires distributed to respondents, and study documents to support this research. The results showed that the state university library has a collection of the institutional repository that contains the scientific work community. The software used to manage repository generally uses software-based Eprints, SImis (GPL v3), and others. Simultaneously, the repository's existing content includes scientific paper form, thesis, thesis, dissertations, and articles. While the policy of access to the collection in the library repository respondent is open access, open access part, and the access is closed, which is reinforced by the legal umbrella of Decree (SK) Rector, Standard Operating Procedure (SOP), or other policies. The head of the library's role in this regard is as a facilitator in developing policies on access to the repository collection.

Keywords: collection repositories, libraries, policies, access to the repository, Universities, Central Java

1.0 PRELIMINARY

The development of science and technology in the present era drove very fast. Various studies have been conducted to find solutions to the problems that exist in society (Bornmann, 2014). In addition to a study carried out to develop a science, because it is in the process should use scientific rules can be justified or scientific-based (Fortune et al., 2015). Research output may then be distributed in the form of such research; thesis, dissertations, articles, books, regulations, research reports, and so on. While the dissemination of research results outlined in the so-called scientific publications (Tkaczyk & Collins, 2018).

In higher education, a college not infrequently publishes its scientific work through scientific journals, conferences, repository, and others, as in a repository in college, which is a content library functionalized form of the scientific activity of academicians in digital form.

According to Manas Das (2018), the college library has several functions, namely:

1. Points collection and dissemination of information.
2. Information access service provider
3. Scientific literacy centre, and
4. The service provider repository

The development of college libraries is required to provide digital service on scientific work academic community results. In this case, the library can be said to turn into a digital library with digital collections in a repository that can be accessed via computer (Susanto, 2010),

According to Seadle & Greifeneder (2007), the digital library is a resource that reconstructs the conventional library services' substance to digital. The digital library has a digital collection that is not only text-based links that are connected with simple or complex but also provides access to the collection through software, both simple page and the database management system is involved.

The digital library concept by McCray and Gallagher (2001), the library has the concept of automation in library services, as shown in the following figure.

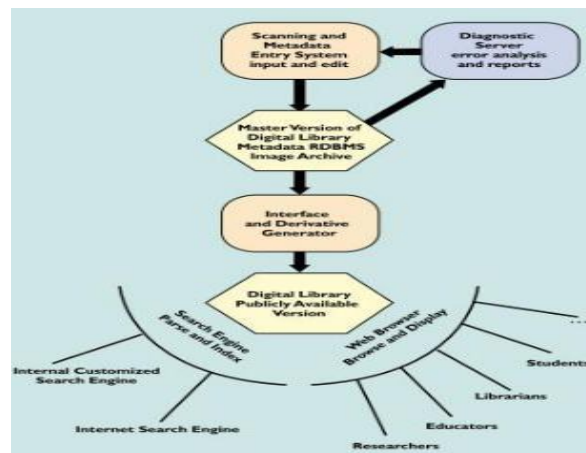


Figure 1. Digital library concept

Digital library in the realm of higher education is instrumental, either by the librarian and library users. For librarians, the digital library helps recognize better library services that the library collection management becomes more effective and efficient. As for library users, digital libraries facilitate access to library collections in the process of information retrieval (Susanto, 2010).

Digital libraries at Indonesian universities are generally expressed in the form of repository or institutional repository. In this case, the library with the repository capable of storing data cumulatively (in increasing numbers), and can serve as long-term storage (long-term preservation), which can be accessed continuously, both in the present and future (Das, 2018). Besides, the institutional repository is also used to indicate the excellent research results (showcase), increase the prestige and visibility of the institution, hence repository for higher education institutions will improve usefulness as a media agency for supporting research and reference search for students (Ernaningsih, 2017),

While the repository as a digital library product have some principles in its operation, i.e. no data updates, team involvement, the draft system used, open access, automation, standard operating procedures to maintain quality (McCray and Gallagher, 2001), Besides, repository also has a function as a medium of publication of scientific works without any restrictions of access to Content. However, in terms of protecting intellectual property rights, scientific work in the repository has a different treatment: a policy on access to intellectual work. With it, the leadership of the college, on the one hand, has a significant role in accommodating the needs of those seeking access library users open, and on the other hand, to protect one's intellectual work.

2.0 FORMULATION OF THE PROBLEM

As one of the products of digital library services, repository requires access restrictions to protect the rights of someone who is an intellectual work typical library collection. Based on this, the problem is how to create a policy on access institutional repository that protects the right to intellectual work published in a library person, in this case, access policy repository in ten academic libraries in the province of Central Java, Indonesia.

3.0 PURPOSE

The research objective was to determine the college leadership policy on access institutional repository collections that protect one's intellectual work

4.0 LITERATURE REVIEW

4.1 Digital Library

The digital library was first introduced by the NSF / DARPA / NASA in 1994 to digitize documents in digital document development. Digital library or electronic library has a digital collection and can be accessed via computer (Susanto, 2010). The transformation from conventional libraries to digital to guide the successful integration of non-digital library format to digital libraries require policies, strategic planning holistically, legal aspects, standardization of collection development, network infrastructure, access methods, funding, bibliographic control, preservation, and so on.

According to Susanto (2010), the design of digital libraries is described with fish design as follows:

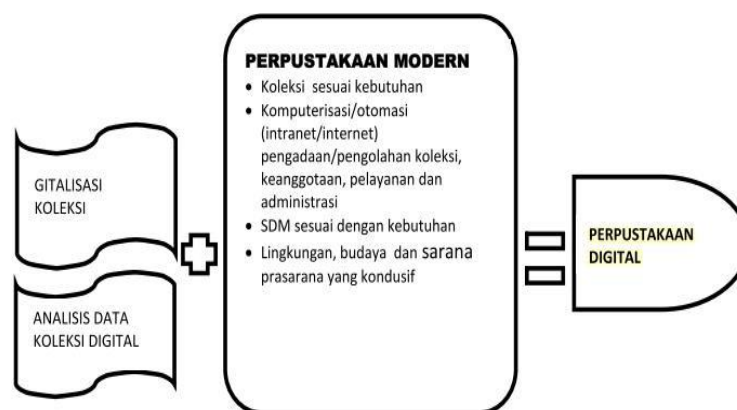


Figure 2. Fish Design Digital Library

Digital library is effectively storing and manipulating the library materials in electronic format (Jones, Andrew, and MacColl, 2006). Problems in digital libraries, in general, are related to the information system network that concentrated on how to develop an adequate infrastructure for

manipulating information (library materials) that is spread on the Internet. While the significant problems in technology are how to find a technology that can be used to locate and display the desired collection of the whole collection away large numbers. It is, therefore, necessary in the

Digital library online catalog does access the library collection. This online catalog is provided in the library as a means to find a digital library collection quickly and effectively, through access points spread across the library.

4.2 Institutional Repository

Etymologically, the institutional repository is defined as a place for storing (archiving). While the meaningful institutional institution or owned by institutions, such as universities, government agencies, and others. The repository is a wide range of services (a set of services) that were developed by an institution for the management and dissemination of the results of various scientific activities of academicians in the form of digital collections, while significant institutional or owned by institutions, such as universities, government agencies, or others (Lynch, 2003).

Institutional repository of research publications in higher education is the appropriate use of information technology and can be accessed quickly, which is built into a library service. Hence institutional repository serves as publisher of materials research, papers, theses, dissertations, reports of scientific papers, working papers, and other document types.

According to Royster (2008), an institutional repository serves as a publication on the original library collection that has not been published elsewhere and its use as a "major reference" eligible to scientific publications. Also, the repository has a function to store and access records scientific works and acts as a medium of online publishing scientific papers in general. Institutional Repository is technical support for libraries to realize the digital ecosystem.

According to Saini (2018), Institutional Repository is a Web-based database in an institution, a library containing a recording material for long-term preservation, using OAI-compliant software, which aims to collect, store, preserve, and disseminate scholarly material in digital form. Meanwhile, according to Crow (2002), the repository is a digital library for accommodating the results of original research results intellectual property from various fields of science, the work of employees/staff of the institution. In the institutional repository (college) realm, the repository library is the intellectual product of researchers and students that can be accessed publicly by library users, both inside and outside the library.

The institutional repository is significantly associated with research that has been validated by experts or advisers scientific papers in the domain-specific knowledge. The institutional repository serves as publisher of materials research, papers, e-prints, theses, reports of scientific papers, conference papers, working papers, and other document types (Jones et al., 2006).

4.3 Open Access In the Institutional Repository

Open access (open access) in institutional repositories positively influences the institution because the institution's scientific papers will be more frequently cited by other authors (Cullen & Chawner, 2011). However, open access repository also raises some issues related to the policy (McCray and Gallagher, 2001) of the protection of works of the author and the principle of transparency of information into digital libraries principle. In this case, open access to the content repository not only be interpreted as complete access to the information without restriction but also the information can be accessed without the use of special tools.

According to Valentine Stanton & Li Liew (2011), open access to students' writing in the repository has positive and negative aspects. On the one hand, open access to students is something that is interesting because they can disseminate research findings to a wide audience and more easily cited by researchers. On the other hand, open access raises concerns about copyright, plagiarism, and publication of the findings were premature.

4.4 Policy Repository Service

Policies are guidelines on how the passage of a system or process that will run and is a guideline for the run. Etymologically policy (policy) is derived from the Greek, Sanskrit, and Latin. The root word in Greek and Sanskrit is derived from the word polis (city-state) and pur (city), then developed in Latin into politia (state), and finally in Middle English became Policie which means dealing with public issues or administration , In Big Indonesian Dictionary, is defined as a series of policy concepts and principles are an outline, a basic plan in the execution of a job, leadership, and how to act (on governments, organizations, and so on), statement of goals, objectives, principles,

According to Leo Agustino (2008), the policy is defined as a series of actions / activities proposed person, group or government in a particular environment, where there are obstacles (difficulties) and the opportunity of the implementation of these policies in order to achieve certain goals. In making policy, the basis is their purpose and objectives to be achieved. Policies that do later are what will be done in the process of achieving goals.

Elements of Policy Systems

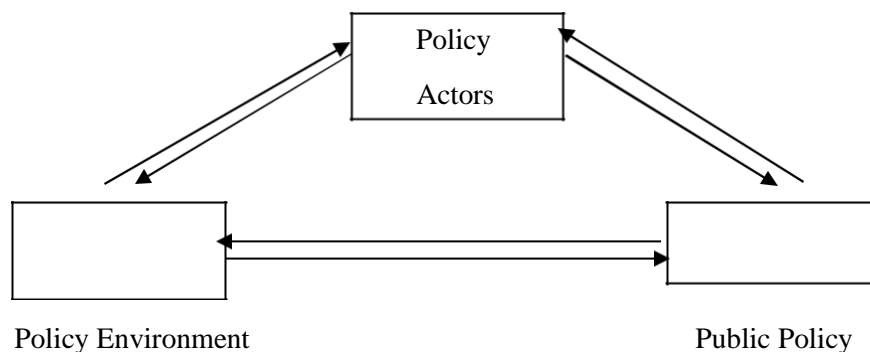


Figure 3. Element management system (Agustino, 2008)

A policy (policy system) or institutional pattern, wherein a policy made, includes the interrelationships between the three elements, namely, public policy, the perpetrator policy, and the policy environment. Public policies (public policies) are a series of choices about interconnected, including decisions to act or not to act. Existing policies in the repository will evolve and be used by institutional development and use. There are many guides to policy development repository that generally revolve around content, how content will be entered into the repository, and what will happen after the content is published in the repository.

5.0 RESEARCH METHODS

This study uses a qualitative method of data collection instrument was a questionnaire. A qualitative approach is used because it is considered most appropriate to seek information subjectively of respondents were involved to collect information on the implementation of the policy of open access repositories institution. The respondents were involved in this study were 10 Universities in Central Java.

6.0 RESULTS AND DISCUSSION

6.1 Repository Usage in Higher Education Institutions

Repository at higher education institutions must be drafted carefully and systematically according to purpose. Repository as one indicator of implementing a digital library is supposed to be implemented by universities in today's digital ecosystem. This opinion was expressed in the previous chapter by Crow (2002) which states that the repository is a digital library, accommodating the results of research from various disciplines presented digitally, which is the intellectual work of the residents of the institution.

All institutions (libraries) of respondents already use the repository to manage the results of their academic society. This indicated that the libraries of the universities in Central Java have led to the digital ecosystem. The findings show that some respondents are already managing their institutional repository in a reasonably long period, which is between three to ten years. It is expected that the repository system that is used in a long time, libraries can provide information in a long period of time anyway, especially information related to the research.

Agency	Content types
A University	The final task the students, the work of Professors, research reports.
University B	thesis, dissertation, scientific papers, journal articles lecturers, lecture materials
University C	<i>Local Content</i> UNS (all works by UNS)
University D	Thesis, Scripts, books, articles
University E	Results of research professors, students final project, a scientific oration
University F	Thesis / final project, students, faculty and articles and proceedings etc
University G	Thesis, Student Final Project, Research Report
University H	Thesis, dissertations, papers, books, proceedings, the final report
University I	Thesis and thesis
University J	Thesis Results

The software repositories used by respondents listed vary, depending on the purpose and function of the inception of the repository by their institutions. But in general, the majority of respondents use Eprints known as an institutional repository for easy in operation, are free of charge, and widely used by college libraries in Indonesia. Eprints addition, several libraries of respondents also use other software, such as slims (GPL v3), or software creations of their own institutions. In this case the making of any software-based repository is permitted, provided that appropriate objectives and functions. But most important is the repository can provide better assessments against their institutions.

6.2 Content Repository

Repository as a document management tool is highly dependent on the content that is available. More variety and quality of the content will further increase the number of users accessing the repository. Research findings related to different content repositories. But in general, the repository used for document archival system thesis and thesis, and not a few respondents use the repository to archive the proceedings, journals, documents, courses, and books. The results are consistent with the theory presented by Jones et al., (2006) which states that the type of content repository serves as a media publishing research results, e-prints, theses, reports of scientific papers, conference papers, working papers, and other document types.

6.3 Repository Access Policy

Respondents to this aspect have a relatively strong level of differences. Some respondents use open access policy, partial and close access to their institutions.

6.3.1 Open Access

Open access policy is taken to embody the disclosure of information related to the research institution, but in practice, the need to prevent plagiarism from the user. Some college libraries' respondents use security system documents that have been uploaded. In this case, before the open access imposed on the document must be an agreement between the institution and author, related to the publication of their scientific work.

6.3.2 Partial

Also there is also open-access that enforces access policies partially or half-open, i.e. only in individual chapters, library users can access the information/content repository, but in other chapters cannot be accessed. In this case, a library of respondents distinguishes some types of content that can be accessed in the open or closed, at the discretion of the prescribed institution. This policy aims to protect the rights of authors of copyrighted works in certain parts associated with the research findings.

6.3.3 Closed Access

Another policy imposed by the respondent is close access. The existing content in the repository is not accessible. This policy was conducted in order to maintain the security of the data in the repository. Some differences in access policies that have been imposed happen because institutions are already using the online system so that the library cannot monitor documents after they are accessed. However, the repository as a digital product library should use the principle in its use, namely the renewal, understand content owned, to define access policies as appropriate, the involvement of the right team to manage the repository can run well, the design of a system that can protect the rights of copyright works writer, supports the disclosure of information, ensure open access, their automation, the implementation of standardized procedures to maintain quality and to guide the use of the repository. Applying policies to each respondent library is closely linked to the right of a copyrighted work. Based on this research, the rights of creative works that have been approved by the author to publish then it will be the right institution. However, in general, respondents' library transferred its rights to the authors of creative works, although it is open.

Agency	Content types
A university	Almost all of the available open access, except for a small document for some reason, could not be opened.
University B	By the policy in each collection and each section
University C	Partial
University D	Open access: Openness and prevention of plagiarism
University E	Close access, because to maintain the security of data Following the request of the author, if the author chose
University F	The option open, then we will open access. Jik did not choose then closed access. The reason that does not happen off the content of The work responsibilities.
University G	Partial. Due to adjusting to the policies that have been determined to Protect copyright and authorship.
University H	Partial, still keeping the values related to copyright and citations
University I	Open access
University J	Open access, Disclosure

6.4 The Legal Framework

The legal framework used to implement access policies on institutional repositories is to publish the Rector Decree (SK), Standard Operating Procedure (SOP), and the local college policy. The regulation is essential to protect the process and use of the repository to be run according to the procedure. The use of rules in the repository, as described by McCray and Gallagher (2001), stated that the required standards of performance guide the use of the repository to maintain quality and content. Open access is primarily imposed by the respondent library offset by the regulations as a legal basis.

6.5 Role of Leaders and Head Institution Libraries

The role of some parties is needed to make fundamental policies. In this study, the respondents provided some data on a library leadership role in making policy repository access, i.e., the leading sector, drafting policy, and proposing policies at the institutions/universities' level. The critical role of the head of the library will provide a good synergy in policy implementation institutions. Open access policies are a necessity in the digital ecosystem will work well when the role of walking. Thus, in this study, researchers describe the relationship a few elements in the digital repository system access policies as in the following picture:

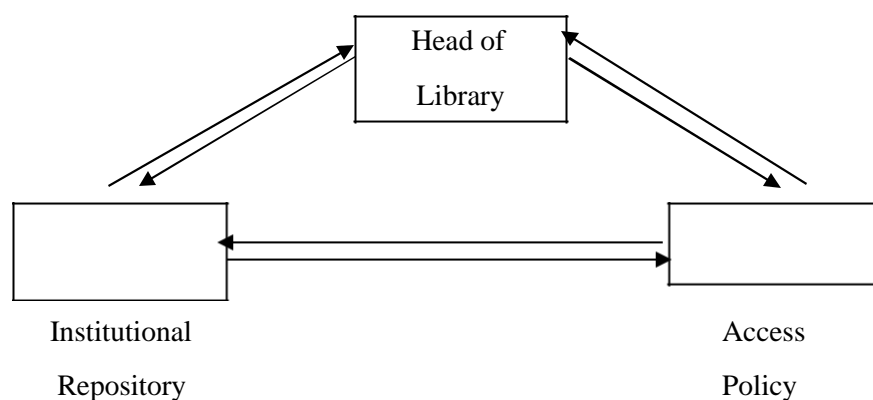


Figure 4. Element of the policy system

Based on Figure 4, the Head of the Library has a role in creating and monitoring the passage of policies on access repository as an evaluation when a policy is seen as less precise so that the policy needs to be adapted to the surrounding community's in this case institutional repository related to the content, facilities, infrastructure, and information. Policies can be done in the open access repository as soon as the relationship between these elements can work well.

7.0 CLOSING

The presence of information technology and the Internet has helped many people's lives today, including library service. Digital products are a concrete manifestation of library services' transformation. Digital Services in the realm of the library requires the disclosure of information. The policy and legal framework necessary for data security is the study published by the repository library. Research shows that the library and repository managers have realized the importance of legal protection for policy service to answer open, closed, or partially repository access questions.

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Bibliometric Review of Malaysian Journal of Library and Information Science 1996-2019

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ABSTRACT

Scopus database was used in this journal bibliometric review of the Universiti Malaya based journal, the Malaysian Journal of Library and Information Science, (MJLIS). This research presented data analysis of authors' productivity, highest cited papers, documents by country, documents affiliations, and documents funding sponsor. This paper is inspired by bibliometric method and studies particularly in the context of Malaysian bibliometrician specifically those of Tiew, Abrizah, and Kiran, (2002). Based on co-word analysis MJLIS has produced 415 documents from 1996 to 2019, mainly on bibliometric studies, Malaysia, scientometrics, and academic libraries. In this research, VOSviewer was used to analyze citation network in MJLIS papers and identify high cited papers in the citation network.

Keywords: *Bibliometric, Malaysian Journal of Library and Information Science, co-word analysis, citation network, VOSviewer*

1.0 INTRODUCTION

The Malaysian Journal of Library and Information Science (MJLIS) is a Scopus and Web of Science (WoS) indexed journal and it is currently publishing three times a year in April, August and December by the Faculty of Computer Science and Information Technology, University of Malaya. MJLIS's output is mainly publication of original research articles in the field of library and information science (LIS) as well as related domains that encapsulate information and knowledge. The journal also encourages contribution on research about professional policies, practices, principles and progress in the LIS fields. MJLIS presence as a professional journal in LIS is to provide a forum for communications amongst LIS professionals especially within the Asia Pacific region, to introduce new concepts, methodologies, systems and technology. Chronologically, between 1996 and 2008 the journal has published articles both in print and

electronic and from 2009 onwards only the electronic version has been made available (<https://ejournal.um.edu.my/index.php/MJLIS>). As of February 2020, the journal is being indexed and abstracted by Clarivate Analytics' Web of Science (Q3) and Elsevier's Scopus (Q2), (Malaysian Journal of Library & Information Science MJLIS, 2020).

2.0 METHODOLOGY

This study utilized bibliometric method to analyze the content of MJLIS in the context of co-occurrence of keywords and citation network. State-of-the-art bibliometric software, VOSviewer supplemented the Scopus data analysis. Scopus query for journal content was used in the following query code, SOURCE-ID (7600153106). The query code extracted all MJLIS papers from 1996 to 2019. In total, there are 421 documents. Average paper output for the last ten years is 20 articles per year which is an increase of 25% number of papers during their first ten years, from 1996 to 2006. Between 1996 to 2006, MJLIS average articles per year was only 15 documents.

Data extracted from Scopus is analyzed using Scopus analyzer in which data analysis of authors' productivity, highest cited papers, documents by country, documents affiliations, and documents funding sponsor is reported graphically. This study also utilized VOSviewer to visualize the sciences of MJLIS's content. Co-word or co-occurrence of keywords of all MJLIS papers is graphically visualized. In the analysis, apparent trends in MJLIS research topics are identified and potentially emerging research direction suggested.

3.0 RESEARCH RESULT

In terms of paper per year, MJLIS has consistently produced an average of 20 papers in the last 10 years as in Figure 1. MJLIS paper production has significantly increased in the recent 10 years in comparison to its first ten years with an average of 20 papers per year in comparison to 15 papers per year during 1996 to 2006.

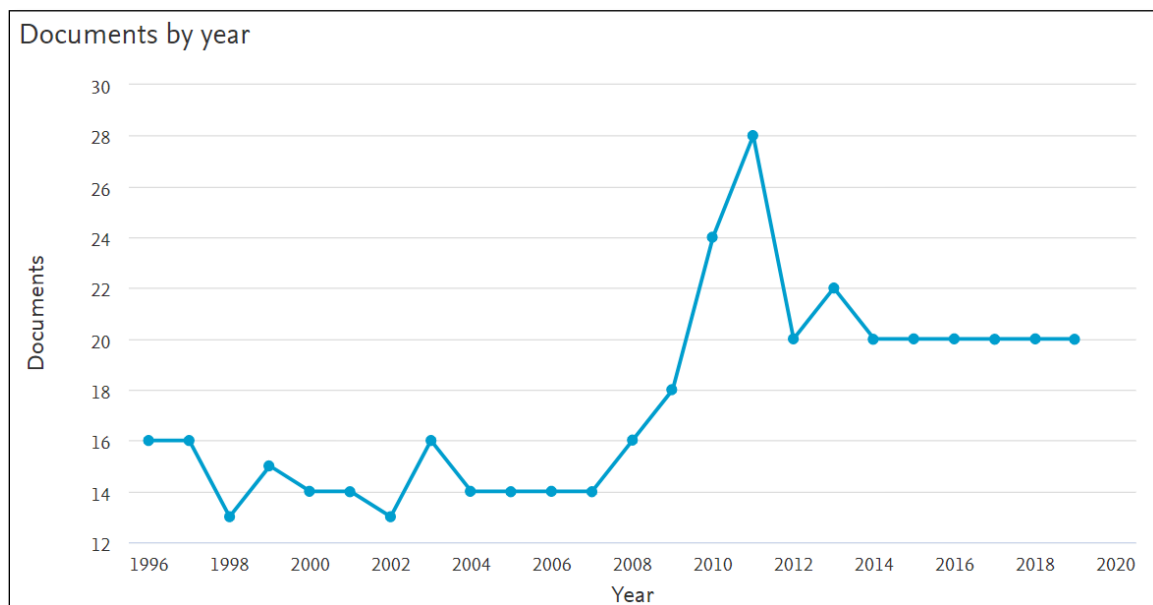


Figure 1. Screenshot of MJLIS document by year production in Sc

In the context documents by author, Prof Dr Zainab Awang Ngah has the highest number of papers in MJLIS with 40 associated papers. In the second place is Prof Dr Abrizah Abdullah with 22 associated papers. The top 15 authors in MJLIS is shown in Figure 2 below.

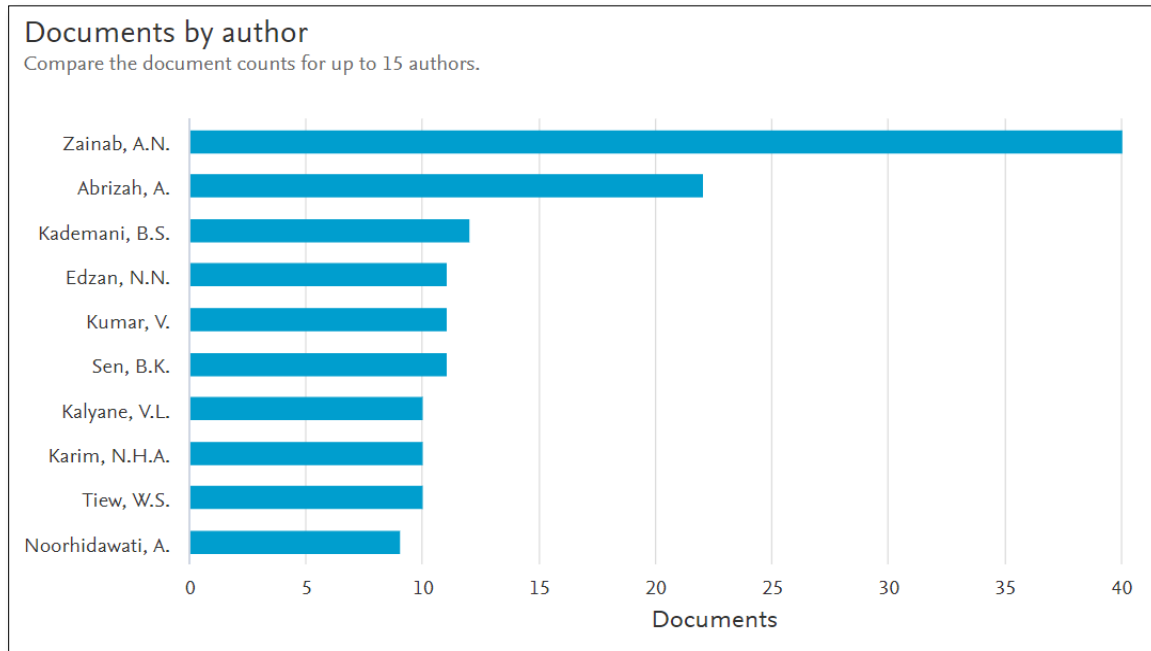


Figure 2. Screenshot of MJLIS top 10 documents by author in Scopus

In terms of MJLIS highest cited paper, Ismail and Zainab's (2005) study on the pattern of e-book usage among undergraduates received 51 citations. In second place is a study by Anyi et al., (2009) on the bibliometric review of single journals with 49 citations. In third is Ramayah and Aafaqi, (2004) study on the role of self-efficacy in e-library usage Malaysian public university students which received also 49 citations. Fourth highest cited paper is Wang et al., (1996) that used bibliometric indicators to compare universities' scientific performance. Abrizah et al., (2010) studied the open access institutional repositories among Asian universities in the context of global visibility. Top 5 MJLIS cited papers is shown in Table 1 below.

Table 1. MJLIS highest cited papers in Scopus as of February 2020

AUTHOR & YEAR	TITLE	CR
Ismail & Zainab, (2005)	The pattern of e-book use amongst undergraduates in Malaysia: A case of to know is to use	51
Anyi et al., (2009)	Bibliometric studies on single journals: A review	49
Ramayah & Aafaqi, (2004)	Role of Self-Efficacy in e-Library Usage Among Students of a Public University in Malaysia	49
Wang et al., (1996)	Comparison of universities' scientific performance using bibliometric indicators	40
Abrizah et al., (2010)	Global visibility of Asian universities' open access institutional repositories	38

*CR=Citation Received

MJLIS research and studies were mainly focusing on local issue as 43.7% of the content were conducted in Malaysia. India is in second place with 13.7% and China in third spot with 7.1% of the journal content research study. Documents by country statistics is shown in Figure 3 below.

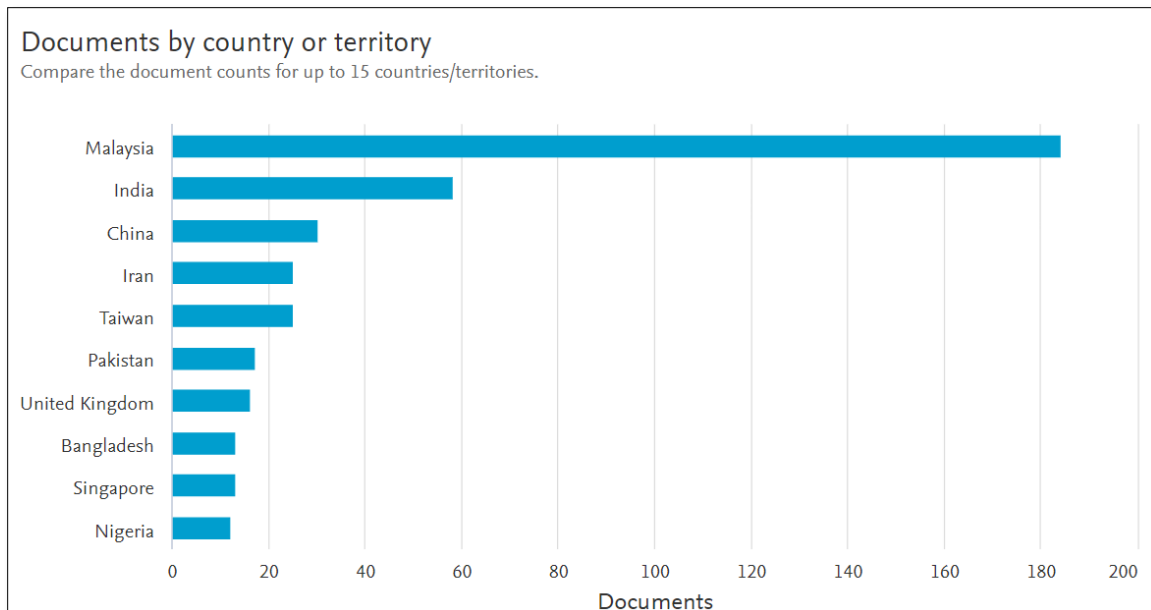


Figure 3. Screenshot of MJLIS top 10 documents by country in Scopus

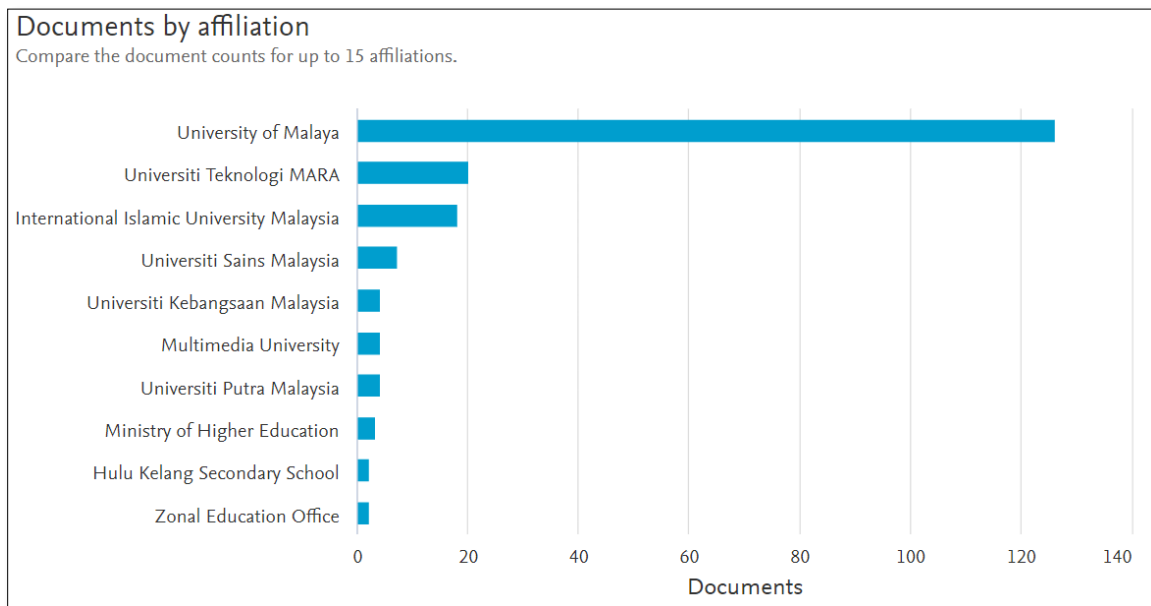


Figure 4. Screenshot of MJLIS top 10 documents by affiliation in Scopus

Document affiliation is the authors' related institution that were presented in the documents. The analysis showed that University of Malaya is at the top, in terms of affiliation of documents by 29.9% of MJLIS content. The top of MJLIS documents by affiliation is shown in Figure 4 above. Documents by funding sponsor is dominated by studies funded by National Natural Science

In the analysis of paper recency, several terms were identified as the most recent topics in MJLIS namely journal studies, scholarly communication, information behavior, web of science, and research performance. In VOSviewer, paper recency is visualized in the overlay visualization shown in yellow color by default as in Figure 7 below.

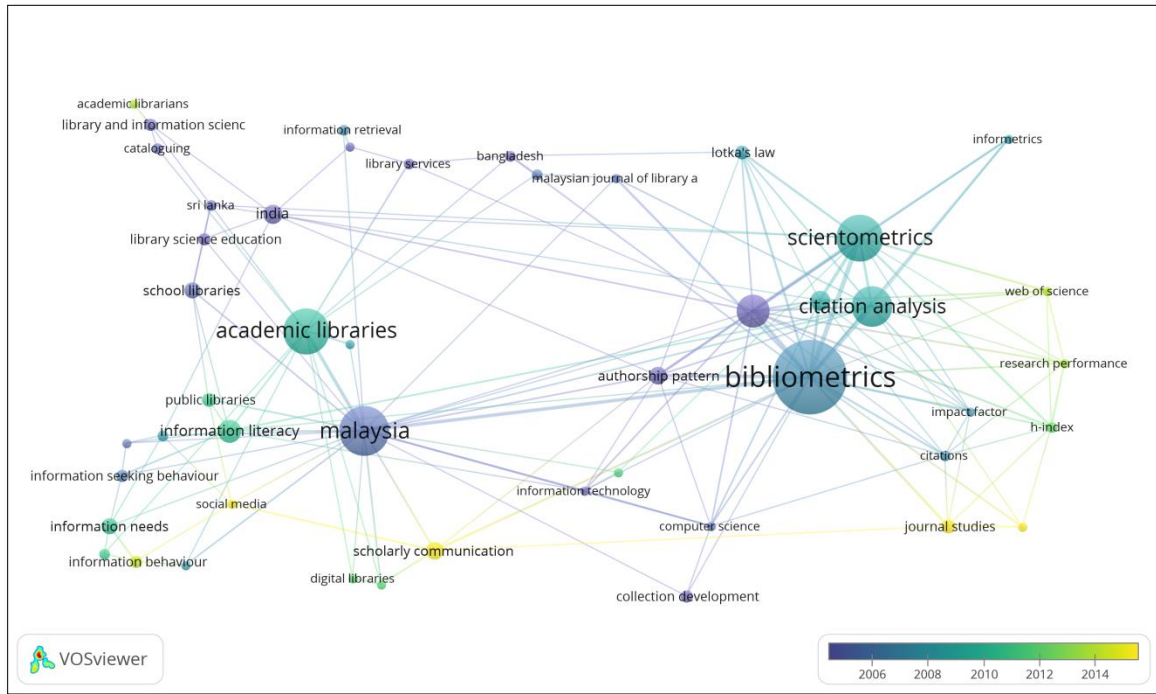


Figure 7. Screenshot of word recency analysis in VOSviewer overlay visualization

4.0 CONCLUSION

This bibliometric study presented data from MJLIS content and has visualized the sciences using state-of-the-art software. In the last years, MJLIS has consistently produced on average 20 papers per year. Prof Dr Zainab Awang Ngah and Prof Dr Abrizah Abdullah are two most prominent authors in MJLIS as proven from the data. Ismail and Zainab, (2005), Anyi et al., (2009), and Ramayah & Aafaqi, (2004) are the most cited authors in MJLIS with 51 and 49 citations respectively. Malaysia is the most studied country and most authors are affiliated to University of Malaya. Most of the research in MJLIS are funded by National Natural Science Foundation of China with 11 documents and Malaysian Ministry of Higher Education in second place with 3 documents. Bibliometrics, citation analysis, and scientometrics are the most used researched topics in MJLIS and the recent topics are about journal studies and scholarly communication.

5.0 ACKNOWLEDGEMENT

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State-Of-The-Art Bibliometric Review of Library Research 2018-2020 In Scopus Database

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ABSTRACT

Three years' recent library research in eleven academic journals, Library Philosophy and Practice, Serials Librarian, Library Review, Journal of Library Administration, Journal of Academic Librarianship, Library Management, Library Hi Tech, Electronic Library, Library Trends, New Library World, and Reference Librarian were analyzed using bibliometric instrument to describe current research topics in library sciences. This research described state-of-the-art sciences and identified key research themes in library subjects. Total citations retrieved were 1,878 research data ranging from 2018 to 2020. Journals' ranking in SCImago Journal Ranking and CiteScore were analyzed comparatively and research impact were evaluated by the number of citations received. Co-word analysis was used to extract significant key terms from data collection and citation network analysis identified key papers in respective themes. This research utilized VOSviewer software to visualize library research sciences.

Keywords: *Library research, bibliometric, research journal, co-word analysis, citation network, VOSviewer*

1.0 INTRODUCTION

This study analyzed three years of journal content using Scopus database and VOSviewer software. CiteScore is calculated based on the average citations received per document. CiteScore is the number of citations received by a journal in one year to documents published in the three previous years, divided by the number of documents indexed in Scopus published in those same three years. For example, the 2016 CiteScore counts the citations received in 2016 to documents published in

2013, 2014 or 2015, and divides this by the number of documents indexed in Scopus published in 2013, 2014 and 2015. SJR is weighted by the prestige of a journal. Subject field, quality, and reputation of the journal have a direct effect on the value of a citation. SJR assigns relative scores to all the sources in a citation network. Its methodology is inspired by the Google PageRank algorithm, in that not all citations are equal. A source transfers its own 'prestige', or status, to another source through the act of citing it. A citation from a source with a relatively high SJR is worth more than a citation from a source with a lower SJR.



1.0 METHODOLOGY

Eleven academic journals were selected from Scopus query with the following code in the search, TITLE-ABS-KEY (library) AND (LIMIT-TO (EXACTSRCTITLE , "Library Philosophy And Practice") OR LIMIT-TO (EXACTSRCTITLE , "Serials Librarian") OR LIMIT-TO (EXACTSRCTITLE , "Library Review") OR LIMIT-TO (EXACTSRCTITLE , "Journal Of Library Administration") OR LIMIT-TO (EXACTSRCTITLE , "Journal Of Academic Librarianship") OR LIMIT-TO (EXACTSRCTITLE , "Library Hi Tech") OR LIMIT-TO (EXACTSRCTITLE , "Library Management") OR LIMIT-TO (EXACTSRCTITLE , "Electronic Library") OR LIMIT-TO (EXACTSRCTITLE , "New Library World") OR LIMIT-TO (EXACTSRCTITLE , "Reference Librarian") OR LIMIT-TO (EXACTSRCTITLE , "Library Trends")) AND (LIMIT-TO (PUBYEAR , 2020) OR LIMIT-TO (PUBYEAR , 2019) OR LIMIT-TO (PUBYEAR , 2018)). The query started with the keyword 'library' which returned 422,492 documents and from there eleven journals were selected. The year of publication is limited to 2018, 2019, and 2020 which returned 1,878 documents. The eleven journals ranking is shown in Table 1 below.

Table 1. Journal rankings and Scopus CiteScore

JOURNAL TITLE	SJR	CiteScore
Library Philosophy and Practice	0.201/Q2	0.34
Serials Librarian	0.584/Q1	0.52
Library Review	0.25/Q3	0.94
Journal of Library Administration	0.8/Q1	0.96
Journal of Academic Librarianship	1.29/Q1	2.1
Library Hi Tech	0.75/Q1	1.59
Library Management	0.46/Q2	0.98
Electronic Library	0.54/Q1	1.47
New Library World	*DIS	**0.99
Reference Librarian	0.51/Q2	0.67
Library Trends	0.35/Q2	0.63

*DIS=discontinued Scopus coverage **2015 CiteScore

VOSviewer program clustered the keywords according to similar themes and visible in different colors of words. To analyze the words at a micro level, GEPHI software was used to extract individual data as shown in Figure 3.

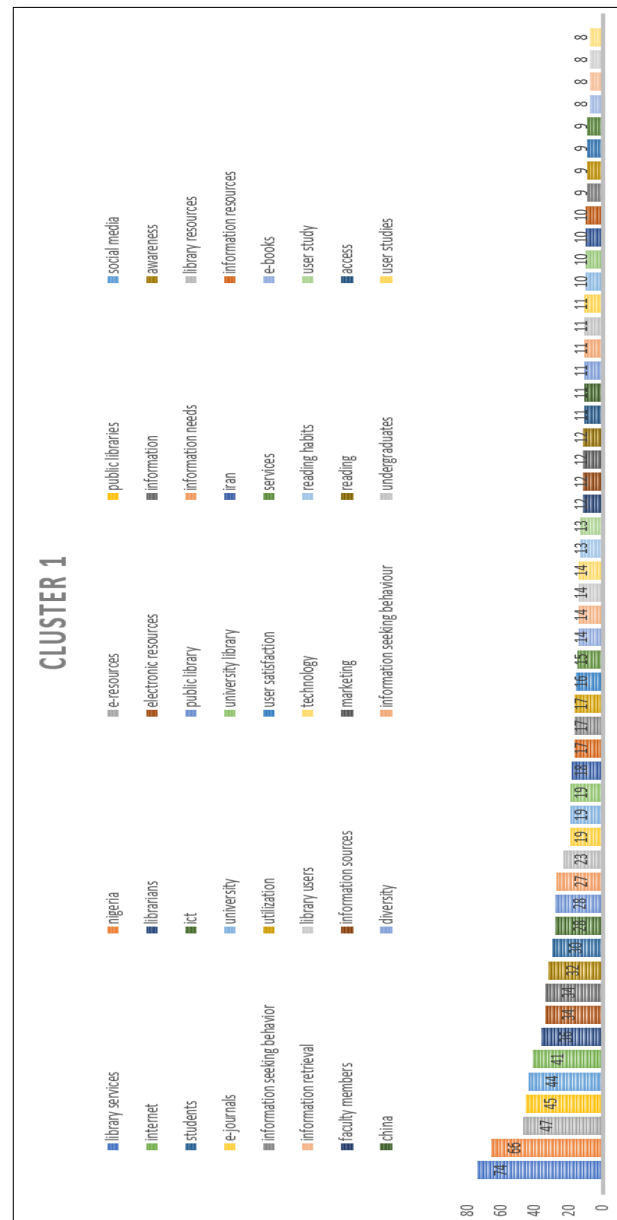


Figure 3. GEPHI data extracted from VOSviewer co-word analysis, Cluster 1 (RED)

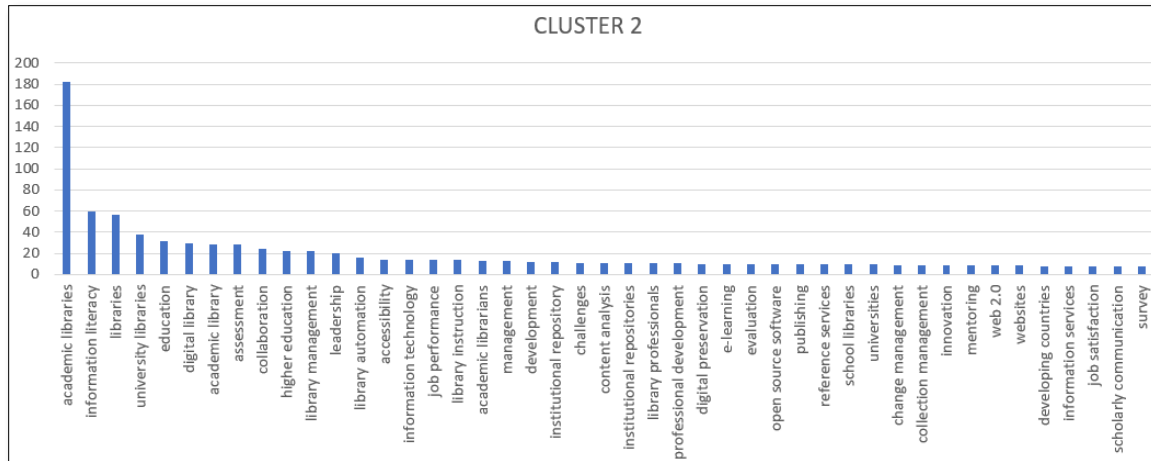


Figure 4. GEPHI data extracted from VOSviewer co-word analysis, Cluster 2 (GREEN)

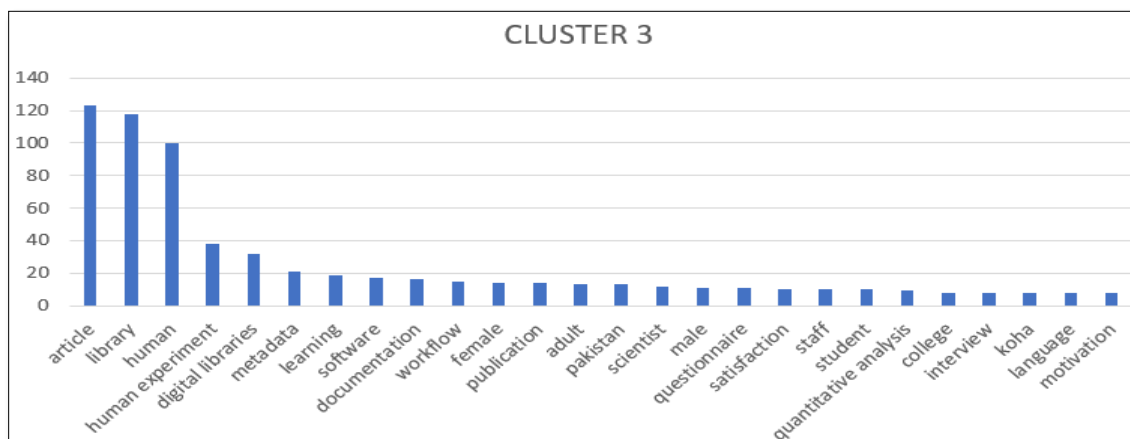


Figure 5. GEPHI data extracted from VOSviewer co-word analysis, Cluster 3 (YELLOW)

In cluster 1, the top three keywords are library services, Nigeria, and e-resources. In cluster 2, the top three keywords are academic library, information literacy, and libraries. Cluster 3 top three are article, library and human. Cluster 4 top three keywords are India, citation analysis, and open access. Cluster 5 and cluster 6 top three are librarian, collection development, data analysis, and library and information science, Ghana, and information science

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Success Factor of Web Integrated Library System and Job Satisfaction in Academic Libraries

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ABSTRACT

Web integrated library system performance is important to evaluate as it's use in managing library activities and holds millions of library records. To have effective web integrated library system for staff, it is essential for the library to offer high quality of system, service, usage and Internet. This study presents a perception on web integrated library system success factor (system quality, service quality, usage quality and Internet quality) and its relationships with job satisfaction. Questionnaires was distributed to 110 library staff who are using the web integrated library system at academic libraries in Selangor, Melaka, Johor, Negeri Sembilan and Pahang. The analyses are undertaken using SPSS. Descriptive findings show moderate perceptions in four variables (system quality, service quality, usage quality and job satisfaction) where the mean value are in the range 3.18 to 3.45 and low perception in one variable (Internet quality) in range 2.69 on a 5-point Likert. Besides that, the results also indicate a positive and high correlation between job satisfaction with usage quality, moderate correlation between service quality and Internet quality. Meanwhile, the relationship between job satisfaction and system quality is weak. The finding of the study is useful for the library to realize that success factor of web integrated library system will contribute to their job satisfaction. As to that, the library should improve their library information system to provide a high quality of library product and services.

Keywords: Success factor, web integrated library system, job satisfaction, information system success, IS evaluation

1.0 Introduction

Higher education libraries cannot live in the past but must look to the future and attempt to anticipate what advances the next decade may bring. Modern libraries can benefit by powerful workflow management as well as flexible and convenient access to information. The development of effective information delivery is a key component of university teaching and learning and modern technology. Computer software packages are designed to perform specific functions for computers or information communication technology (ICT) operations (Kari and Baro, 2014). Libraries used various software packages to automate their operations. Integrated library systems like other technologies, are playing an essential role in facilitating libraries in running their operations more quickly and efficiently (Siddique and Mahmood, 2014).

Integrated library management system varies by several factors, including scalability, database type, operating system compatibility, support for bibliographic record formats and interoperability (Madhusudhan and Singh, 2015). Library management systems are established as an essential tool in the support of effective customer services, stock management and management of services offered by libraries (Madhusudhan & Singh, 2016). Most of the vendors of library management

systems on the market had products which were introduced as systems of the third generation. They all looked more or less the same, both inside and outside, as they were designed following the same pattern, but none of them was or is completely finished (Dahl, 2002).

Evaluation had generally been accepting as an essential element for measuring and ensuring effectiveness and efficiency in library system. An assessment of different library systems is essential before selecting and implementing an appropriate one; it is also necessary to evaluate a system after it had been implemented and operational for a significant period. This is done to check whether or not the system is performing to expectation, its functionality and the important problems. Evaluation research not only analyses the usability and usefulness but also the performance of system (Taale, 2008).

In relation to that, this study is designed to evaluate the library information system namely Web Integrated Library Management System, at academic libraries in Malaysia. The study analyzed Web Integrated Library Management System in terms of their usability, success, effectiveness, efficiency and benefits by adapting the modification of Information System Success Model (ISSM) of DeLone and McLean (2003).

This research is guided by the following objectives:

- i. to determine the success factor of WILS pertaining to system quality, service quality, usage satisfaction, Internet quality and job satisfaction.
- ii. to examine the relationship between system quality, service quality, usage satisfaction, Internet quality and job satisfaction.

2.0 Literature review

Information system success model is selected to be used in this study which conducted by Delone and McLean (1992). It's explain comprehensively the success measures of information system in the survey of the literature as below: -

Table 1: Success measure of information system

System quality	System use	User satisfaction	Individuals impact	Organizations impact
-ease of use -ease of learn -user requirement -system features -system accuracy -flexible -integration -customization	- number of inquiries - frequency of access - number of reports generated	- overall satisfaction - enjoyment - software satisfaction	- learning - awareness - recall - decision - effectiveness - individual productivity	- costs - staff reduction - productivity - improve outcome - organization - process change - return on investment

The success factors are usually listed as either very general factors or very specific factors affecting a particular project (Belassi and Tukul, 1996). It describes the impacts of several aspects on system performance thus helps the organization to improve or take any related actions in future. The success of information system is not only depending on high technology but also include on users successfully use of the system. Previous studies by Delone and McLean suggested that there are five success factors which are system quality, system use, individual impact, organizations impact and user satisfaction. In system quality the item consider are ease of use, ease of learn, meet

user requirement, system features, system accuracy, flexibility, integration and customization. In system use the items are numbers of enquiries, frequency of access, number of reports generated. The user satisfaction consists overall satisfaction, enjoyment and software satisfaction. For individuals impact it involves through learning, awareness, recall, decision, effectiveness and individual productivity. In organization impact it contains cost, staff reduction, productivity, improve outcome, organization process change and return on investment.

A. System quality

There is a need for a high quality of library management system as academic libraries need to serve their user all around the country with the accurate and complete information to support the teaching, learning and research activities. WLIS need to have a comprehensive module and contains all system features and function whether in an acquisition, cataloguing, circulation, serials, binding and article module. The functionality and efficiency of the integrated library system is critical to the smooth operation of information system in fulfilling library client charter as to provide access to information at anytime and anywhere. System quality refers to the quality of information processing offering key function and features. It is also related to the technical aspect of software that is user-friendly, easy to cope with and maintain (Gorla, Somers and Wong, 2010). An instrument in system quality is explained by DeLone and McLean (2003) as consist of ease of use, functionality, reliability, data quality, flexibility and integration.

Zaied (2012) in his study revealed that measurement of system quality focuses on system performance characteristic, resource utilization and investment, response time, system trust and accuracy. Additionally, the element of reliability, usability, adaptability, trust and maintainability are also highlighted. The complete system features can support the ability to store data and make data easy to retrieve by the system's users. Fox *et al.* (1993) stated that in the field of library and information science, specific system features are believed to be critical in affecting the usage of libraries system. Without the complete system features, staff will face the difficulties in processing and manage a large amount of libraries collections. In Yu and Qian (2018) study, they explained that system quality indicates the overall system performance as perceived by users.

B. Service quality

In today world of intense competition, the key to sustain in competitive advantages lies in delivering high quality of service that will result in satisfied customers (Shemwell et al., 1998). The service quality is also one of the highly debated and researched topics in marketing theory and has been described as a form of attitude in responding to a favorable or unfavorable way of an object. After sales service is critical for system vendor to fulfilled as for supporting any requirement from users of the system. Their services help academic libraries to minimize any error or problems regarding the use of WILS. At the early phase of WILS implementation and data migration, difficulties occur and library staff are unfamiliar with the term used in WILS module.

Concurrent with this scenario, Information Technology department is responsible to manage feedback from library staffs. In order to cope with this, academic libraries had setup team expert and technical team to support any additional requirement and look into the feedbacks. All the feedbacks are recorded and monitored in feedback platform named iSMS. This due to the progressive action and monitoring action by the Chief Librarian to ensure all feedback on WILS must take action as soon as possible to avoid any service interruption and to make sure the objective of the library are achieved to serve a comprehensive, up to date and relevance knowledge resources. As stated by Petter *et al.* (2008), service quality concentrates on the level of service delivered by system provider to users in term of reliability, responsiveness, assurance and empathy factor. It also had to meet user expectation and satisfaction by providing service in time and courteous when

dealing with the request. This required a knowledgeable person in charge to solve any system problem and ensure error-free on system performance.

The research literature on service quality had identified numerous model by the different researcher. Parasuraman *et al.* (1988) develop a comprehensive SERVQUAL instrument on 22 items work of service quality and value which measure by five-factors namely reliability, responsiveness, assurance, empathy and tangibles. According to Adil (2013) from customers' perspective, service quality significantly influences their satisfaction by provides fast service, understand the needs, available when needed, empowered to resolve problems and lastly shows sincere interest in solving problems. Likewise, study conducted by Adil (2013) itemized service quality as up to date equipment, services delivered at promised time, services delivered as promised, error-free records, service right at the first time, solving the problem, trustworthy, courteous, knowledgeable, prompt service, willing to help, individual attention, specific needs and best interest.

C. Usage Quality

Usage is the degree and manner in which staff utilize the capabilities of an information system by the amount of use, frequency and extent of use. Venkatesh *et al.* (2012) justify intention to use is determined by the user's beliefs about the system. Furthermore, TAM model enables the acceptance of technology by considering behavioral intention to use and actual system use of the information system (Davis, 1989). The previous study explains the acceptance of library information system are based on factor analysis of perceived usefulness and ease of use. It contains an indicator of the quality of work, control over work, work more quickly, critical to the job, increase productivity, job performance, accomplish more work, effectiveness, makes job easy and useful for perceived usefulness.

While indicator perceived ease of use are; cumbersome, easy of learning, frustrating, controllable, rigid and inflexible, easy of remembering, mental effort, understandable, effort to be skillful and ease (Petter, DeLone, 2015), and success of individual, group, organization in improving the decision making, productivity, increase sales, cost reduction, and increase profit. The value also includes the efficiencies use in internal operation, effective management of resources, improve customer service and improve decision making (Gorla, Somers and Wong, 2010). Moreover, this use takes account the individual satisfaction and organization performance in creating competitive advantage and strategic value (Mahmood and Soon, 1991).

A study conducted by Burton-Jones in 2005 discovered the sampling of 48 articles in major information system journals in the period 1977-2005 that explain the usage as an activity that involves three elements; a user, a system and a task. System usage is measured by the number of systems sessions, the percentage of times use to perform a task, duration of use, number of times system use and voluntariness of use. There are many conceptions of system usage at the individual, group, and organizational levels, with most researchers conceptualizing system usage as a behavior (what a user does), cognition (what a user thinks), and/or an effect (what a user feels). At the individual level, most researchers view system usage as behavior, measuring system usage via indicators such as an individual's frequency or duration of usage (Trice and Treacy 1986). Therefore, in term of usage quality the items measured consists of enjoyable, convenience to learn, recommended to others, intended to use in future and most importantly easy to use.

D. Internet quality

The Internet is a global computer network providing a variety of information and communication facilities, consisting of interconnected networks using standardized communication protocols (Oxford, 2018). The Internet enables network of global exchanges including private, public, business, academic and government. The Internet used as a global communication system, including hardware and infrastructure. As computing advanced, communication was gradually delivered and enhanced. Nowadays, billions of Internet users rely on multiple application and networking technologies to do their daily business and social activities. The Internet is the most cost-effective communications method in the world, in which the data transfer and file-sharing services are instantly available (Technopedia, 2018).

By taking these advantage, many business and organization are moving forward to use cloud computing services and integrated system. In order for the service and system to work effectively, the high quality of Internet connection is crucial. A study conducted by Lahrssen (2018) describe that the speed and bandwidth of Internet is affected by the number of users on the network. In order to effectively handling organization activities, a high speed of Internet connection is required. Moreover, Internet permits the secure point to point connection over network for data protection. As to use cloud processes efficiently, organization needs dependable high-speed Internet. Being able to put organization processes in the cloud keeps expenses down and productivity high. With fast Internet connection, it makes easy to connect and interact with other staff in organization despite their current location. In addition, the high speed of connection can eliminate many potential telecommunication problems, like slow Internet speeds during heavy use and slow uploads of important files.

Similarly, Ahmed (2017) agreed that the faster Internet speed, the more we can accomplish business goals, high quality and efficient organization process. With a high speed of Internet connection, the average page loading times are majorly reduced. When the Internet does not have high speed capability, the connection becomes slow when more than one user tries to browse the web at the same time. Above all, without high-speed, sufficient and stable internet connection, the organization may face a trouble in digital business operations and obstruction towards success.

E. Job satisfaction

Satisfaction is considered as a prerequisite for staff retention, loyalty and helps in profitability and return on investment (Hackl and Westlund, 2000). It can occur at multiple levels based on the function that encounters/experiences of the staff in an organization. Measuring satisfaction on system performance has great potential to provide a library with information about their actual staff performance and their expectations. Such information also allows vendors to fine-tune their efforts to improve the quality of their services or to deliver services that appear attractive to system users (Shin & Elliott, 2001). In this manner, measuring job satisfaction of library staff when using WILS is expected to enhance the library reputation and image, increase attention to staff needs, reduce staff attrition (Muffato & Panizzolo, 1995) and ultimately increasing profitability.

Besides, one of the information system success objectives is to satisfy its users by meet their need and achieve their expectation. This can be done by capturing the behavior that affects satisfaction by looking at usefulness element. The successful system can assist users to contribute values to the internal and external customer. In Seddon and Kiew's model, usefulness is believed to effects satisfaction but in some situation, satisfaction is thought to be a better alternative for success than actual use (Jones and Beatty, 2001). Many researchers such as William and Anderson (1991) emphasized that satisfaction consists of a cognitive and effective component which include behavioral action or thinking and emotional attitude. Other than that, job satisfaction consists item of meets the information processing needs, sufficient system, effective system, well satisfied with

the system as a whole, helps improving capabilities to meet the need of target group, help create value for users and allow more user orientation. While, a study conducted by Zaied (2012) explained the element of measuring user satisfaction specifically on job satisfaction are self-efficacy, repeat visit, personalization, perceived risk and enjoyment. In term of use of information system, the other popular element on job satisfaction includes; it would help to complete work/task assign, has met certain expectations, improve productivity, improve decision making or problem-solving and saves time.

3.0 Methodology

The quantitative study was conducted in order to test the hypotheses in this study. Online survey via Google Forms is used for data collection. The online survey URL link and information is emailed to the respondents due to save time, quick and easy feedback, expenses and overcoming geographic distance. The participants in this study are academic libraries staffs in Selangor, Melaka, Johor, Negeri Sembilan and Pahang from different departments who use web integrated library management system in their daily operation and activities. For this study maximum number of 110 sample size are used as to ensure better response rate in minimum amount of time. The research instrument consisted of two main sections. The first section incorporates a nominal scale to identify respondents' demographic information. The second section uses 5 points Likert response scale where

5: Strongly disagree, 4: Disagree, 3: Neutral, 2: Agree and 1: Strongly agree. This section includes Information System Success concepts. The data receive from the questionnaires are coded and enter onto the SPSS statistical program (SPSS Version 24.0 for Windows). The data are subjected to descriptive analysis, validity and reliability test and correlation test.

4.0 Results and discussions

Reliability Analysis

Reliability generally refers to the extent to which a variable or set of variables is consistent in what it is intended to measure. Based on the Table 2, the value of Cronbach's Alpha for system quality was 0.89, service quality was 0.94, usage quality was 0.94, Internet quality was 0.80 and the job satisfaction was 0.92. According to all of the value, all variables are stated more than 0.5 value of Cronbach Alpha which means that all the instruments of the study were trustworthy and reliable. Therefore, it can be used for further analysis.

Table 2: Reliability test

	Variables	Cronbach's Alpha	No. of item
1	System quality	0.89	3
2	Service quality	0.94	5
3	Usage quality	0.94	5
4	Internet quality	0.80	3
5	Job satisfaction	0.92	5

A. Perception on success factor of WILS pertaining to system quality

System quality is the desirable characteristics of an information system such as ease of use, ease of learning, flexibility, reliability as well as system features of sophistication, and response times. System quality is also a value of the system performance and desirable characteristics of information system. Table 3 shows the mean score of system quality was moderate in which library staff were agree that WILS has all features (mean = 3.45), WILS is integrated (mean = 3.34) and WILS is well structured (3.27).

Table 3: Mean score of system quality

	Statement	Mean	Std. Deviation
1	WILS has all features	3.45	0.95
2	WILS is well structured	3.27	0.93
3	WILS is integrated	3.34	0.91
	Overall	3.35	0.83

B. Perception on success factor of WILS pertaining to service quality

Service quality is the quality of the support that system users receive from the IS department and IT support personnel for example in term of responsiveness, accuracy, reliability, technical competence, and empathy of the personnel staff. Table 4 shows the mean score of service quality was moderate. Library staff were agreeing that the staff of technical support for WILS shows sincere interest in solving problems (mean = 3.52), the staff of technical support for WILS provides fast service (mean = 3.5), the staff of technical support for WILS empowered to resolve problems (mean = 3.44), the staff of technical support for WILS available when needed (mean = 3.42), the staff of technical support for WILS understand the needs (mean = 3.39).

Table 4: Mean score of service quality

	Statement	Mean	Std. Deviation
1	The staff of technical support for WILS provides fast service	3.51	0.91
2	The staff of technical support for WILS understand the needs	3.39	0.88
3	The staff of technical support for WILS available when needed	3.42	0.94
4	The staff of technical support for WILS empowered to resolve problems	3.44	0.99
5	The staff of technical support for WILS shows sincere interest in solving problems	3.52	0.98
	Overall	3.45	0.82

C. Perception on success factor of WILS pertaining to usage quality

System use is the amount and routine in which staff utilize the capabilities of an information system. For example, the amount, frequency, nature, appropriateness, extent and purpose of use. It describes how well the outputs of information are used. Table 5 shows the mean score of usage quality in which the overall score is 3.12. Library staff was agreed that WILS is intended to use in future (mean = 3.34), WILS is convenience to learn (mean = 3.15), WILS is easy to use (mean = 3.14), WILS is recommended to others (mean = 3.00) but disagree on WILS is enjoyable (mean = 2.96).

Table 5: Mean score of usage quality

	Statement	Mean	Std. Deviation
1	WILS is easy to use	3.14	0.95
2	WILS is convenience to learn	3.15	1.01
3	WILS is recommended to others	3.00	1.02
4	WILS is intended to use in future	3.34	1.04
5	WILS is enjoyable	2.96	1.00
	Overall	3.12	0.90

D. Perception on success factor of WILS pertaining to internet quality

Internet quality refers to the speed and establishment of Internet connection when using the information system. Table 6 shows the mean score of Internet quality is 2.69. Library staff disagree that Internet connection at my workstation is sufficient (mean = 2.79), Internet connection at my workstation is stable (mean = 2.70) and Internet connection at my workstation is high speed (mean = 2.58).

Table 6: Mean score of Internet quality

	Statement	Mean	Std. Deviation
1	Internet connection at my workstation is high speed	2.58	0.95
2	Internet connection at my workstation is sufficient	2.79	1.02
3	Internet connection at my workstation is stable	2.70	0.96
	Overall	2.69	0.87

E. Perception on success factor of WILS pertaining to job satisfaction

Job satisfaction describes as the feelings, attitudes or preferences of individuals regarding their work. It consists the overall satisfaction on system and library staff approval or disapproval of WILS. Job satisfaction is also a major source of determining the success of library information system. Table 7 shows the mean score of job satisfaction with overall mean of 3.18. The library staff agreed that WILS helps to complete my work (mean = 3.36), followed by WILS improves my decision (mean = 3.32), WILS improved productivity (mean = 3.17), WILS saves my time (mean = 3.05) and last but not least, slightly disagree on WILS has met my expectations (mean = 2.97).

Table 7: Mean score of job satisfaction

	Statement	Mean	Std. Deviation
1	WILS helps to complete my work	3.36	0.81
2	WILS has met my expectations	2.97	0.83
3	WILS improved productivity	3.17	0.93
4	WILS improves my decision	3.32	0.87
5	WILS saves my time	3.05	1.11
	Overall	3.18	0.79

F. Relationship between WILS success factor and job satisfaction

Table 8 shows the correlation between five dimensions of WILS success factor and job satisfaction. There were a positive and high correlation between job satisfaction with use quality ($r=0.789$; $p<0.01$) and moderate correlation on service quality ($r=0.582$; $p<0.01$) and Internet quality ($r=0.482$; $p<0.01$). However, there were positive but low correlation between job satisfaction with system quality ($r=0.340$; $p<0.01$).

Table 8: Results of correlation analysis between system success and job satisfaction

	SYSQ	SRVQ	USEQ	INTQ	JOBQ
System quality	1				
Service quality	.660**	1			
Usage quality	.520**	.591**	1		
Internet quality	.215*	.257**	.419**	1	
Job satisfaction	.340**	.582**	.789**	.482**	1

**. Correlation is significant at the 0.01 level (2-tailed)

5.0 Discussion

The WILS success factor have a relationship with job satisfaction and it is therefore all hypotheses in this study were accepted. The findings reveal that there is a positive but low correlation between system quality and job satisfaction. Majority of WILS users are support staff with less than a year experience in using WILS. The respondents find it a bit difficult to adapt the system in short amount of time because of the different features, integration, terms and structured. This might have an impact on their job satisfaction. Service quality was positively and moderately correlated with job satisfaction. The service quality factor shows significant relationship with job satisfaction as they support library staff need in term of providing advisory and guidance to get their job done. Leonard-Barton & Sinha (1993) in their study found that the technical staff performance in response to user problem was positively related to job satisfaction. This is also supported by case study conducted by Leclercq (2007) which found the significant relationship between technical staff function and

quality of service provided had an impact on the job satisfaction. It is also shown a positive relationship and high correlation between usage quality and job satisfaction.

According to Agarwal & Prasad (1999) user value the usefulness of new system with the support of training, technology awareness, accept the technology advancement based on their education, past experience, positive attitude and believe. Here, it was found that library staff are willing to learn more about handling WILS and intended to use in future as the evidence of great effort by the top management that send expert team to every campus. This initiative is implemented as to educate their staff in proper classroom training, hands on experience, instructor led format as well as details document in work instruction process. The relationship between Internet quality and job satisfaction was positive and moderate with correlation. The Internet quality factor shows significant relationship with job satisfaction as without it, WILS cannot run smoothly and fulfil respondent needs. As there are limited literature and quite a few study conducted to explain the impact of Internet quality to system success, this study discovers that by using web integrated library management system, Internet quality has a huge impact and relations towards job satisfaction. Fast speed, sufficient and stable Internet connection are critical in order to produce a platform for data to be access, process, retrieve, disseminate and share between one campus to another. Failure of any one of this requirement may lead to the data error, duplication, data corrupt and time consuming (Bouch, Kuchinsky & Bhatti, 2000).

6.0 Recommendations

Based on the study conducted, several recommendations are suggested as to improve the job satisfaction on web integrated library system in academic libraries. First, the future research on knowledge, attitude and practices (KAP studies) are proposed as to measure WILS in real situation, identify what is known or done and the effectiveness of WILS that affected staff behaviors. Second, staff who works with WILS is dealing with complex and subject to productivity pressure. Adequate training on every module is a must and has long lasting impact to the morale and willingness for them to embrace technological change. Third, frequent audit should be conducted to verify secure operation of a system and its software. This process will determine if the information systems are safeguarding assets, maintaining data integrity, and operating effectively to achieve the library goals or objectives. Moreover, it helps to examine the library information system inputs, outputs, and processing. Fourth, the library should encourage and motivate their staff on accepting the change to WILS as to be patient, open minded and cooperate together to contribute any ideas or necessary improvement.

Researcher can also future study and get the feedback from user perspective on WILS success factor in term of user satisfaction. Details studies on each module in WILS will permit library management to see the different level of difficulties in performing job activities and create the platform for collaboration with vendor on system enhancement. It is also suggested that, academic libraries to set up IT special force of expert team that consist system analyst, system developer, programmer and information technology expert to look into issues of WILS technology, data structure and programming without sole dependencies to vendor. Last but not least, in strategic management plan library are advice to looked back on WILS phase of strategy formulation, strategy implementation and strategy evaluation in order to improve WILS quality as well as to increase their staff job satisfaction.

7.0 Conclusion

In line with academic libraries 3A concept of access, retrieve and use of their information service anytime, anywhere at any device, web integrated library system surely helps to integrate all the library collection across the country. From the findings it shows that the performance and quality of WILS is still at moderate level. As for that reason, WILS needs to upgrade, modify, improve and customize its features to meet library staff requirement. This study creates an opportunity for the evaluation and measurement which are important to be done as to check and balance of WILS performance towards job satisfaction. This evaluation process helps to identify WILS success factor and whether it excel or strengths in any type of module. The lesson learned from this study will support the improvement of WILS in future and acknowledged the challenges and success stories. It is also hope to enable academic libraries to review WILS performance in term of system quality, information quality, service quality, usage quality and Internet quality on annual basis as to boost their staff job satisfaction. To conclude, according to Knox (2014) not one single library management system is perfect and each new system installed at a library provides an opportunity for something to success or fail. We all learn something new every day and it was hope that all library staff give themselves a chance to learn, adapt and adopt this new integrated system environment from their own efforts. We should support and accept the change and make full use of this new system and constantly giving feedback within selected community of practice as to come out with effective solution.

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Evaluation Of Utilization Of Digital Library Applications Universitas Muhammadiyah Sumatera Utara

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ABSTRACT

The purpose of this study evaluates the use of UMSU Digital Library and the level of utilization of UMSU digital library applications. This study uses descriptive qualitative research. The study was conducted at the Library of the University of Muhammadiyah North Sumatra and the Campus Environment of the University of Muhammadiyah North Sumatra in January 2020. The informants of this study were the Head of the Library of the University of Muhammadiyah, North Sumatra, 10 users of UMSU academics and non-academics users of UMSU. Determination of informants using purposive sampling techniques Data collection is done by using in-depth interviews (depth interviews) and observation. The results showed that the lack of collections provided by the UMSU Digital Library application resulted in the low utilization of UMSU digital library applications by UMSU students and non-UMSU academic community users. And also UMSU Academic Non-civitas Users know the application from the Google and Google Play Store suggestions and references when they search and use online library keywords, curiosity makes them interested in using the UMSU digital library application.

Keywords : *Digital Library, Library Application, M-Library, ICT*

1.0 Introduction

Science and Technology (Science and Technology) is developing more rapidly making someone easier and faster in finding information. Higher education libraries have the aim of helping universities in providing information to students. University library users who are students of the millennial generation whose entire activities of their lectures need technology either looking for references or accessing many things they need. One of the information and communication technology that is becoming a trend is mobile technology, especially for Android mobile devices. The mobile library (m-library) is able to enhance sophisticated technology by the library system especially the college library using the latest technology based on communication devices such as smartphones and other technology devices that are able to attract the attention of library users, especially millennials who mostly use smartphone communication tools using the m-library application. UMSU Library is the first university library in North Sumatra that has implemented an Android-based m-library application. UMSU Library has been implementing this android-based m-library application service for 1 year by utilizing the internet as a medium of information dissemination (dissemination) in accessing information (digital library) wherever and whenever.

Higher education library

Higher education library is a type of library that serves users, especially the academic community by providing library materials and information needed by users, which are essentially an integral part of a college that aims to help the achievement of higher education goals. The library is held aiming to support the implementation of higher education programs in accordance with the Tri Dharma of Higher Education, namely education and teaching, research and community service. In Law No. 43 of 2007 concerning libraries, university libraries state that:

(1) Each tertiary institution organizes libraries that fulfill library national standards with due regard to National Standards Education.

(2) The library referred to in paragraph (1) has a collection, both the number of titles and the number of copies, which is sufficient to support implementation of education, research and community service.

(3) Higher education libraries develop library-based services information and communication technology.

(4) Each tertiary institution allocates funds for development library in accordance with statutory regulations to comply national education standards and national library standards. According to Yuyen (2010), there are several functions of Higher Education Libraries, namely as follows :

1. Studying Center, meaning that the library is a learning center, meaning that it can be used to support learning (getting information in accordance with the needs in education).

2. Learning Center, meaning that it functions as a learning center (not just learning), meaning that the existence of a library is functioned as a place to support the learning and teaching process. (Law No. 2 of 1989 Ps. 35: Libraries must exist in every education unit which is a source of learning).

3. Research Center, this is intended that the library can be used as an information center to obtain material or data or information to support in conducting research.

4. Information Resources Center, which means that through the library all kinds and types of information can be obtained because of its function as a source of information.

5. Preservation of Knowledge Center, that the function of the library is also as a center for the preservation of knowledge as the work and writing of the nation which is stored either as a collection of deposits, local content or gray literature

6. Dissemination of Information Center, that library functions not only collect, process, serve or preserve but also function in disseminating or promoting information.

7. Dissemination of Knowledge Center, that in addition to disseminating library information also serves to disseminate knowledge (especially for new knowledge).

2.0 Digital Library

Digital libraries according to the Digital Library Federation cited by Hasugian (2009) state that: Digital Libraries are various organizations that provide resources, including specially trained employees, to select, manage, offer access, understand, disseminate, maintain integrity, and ensure the integrity of digital works in such a way that collections are available and economically affordable by a community or group who need it. Meanwhile, according to Rahman (2010) Digital Library is a library that manages all or part of the substance of its collections in the form of computerization as an alternative form, supplement or supplement to conventional printing in the form of micro material which is currently dominated by library collections. Thus a digital library is an organization that provides resources and expert staff to select, arrange, provide access, translate, disseminate, maintain unity and maintain the continuity of collections in digital format so that it is always available and inexpensive for use by certain communities. According to Arms, cited by Achmad (2010) regarding The benefits of a digital library are as follows:

1. Digital libraries bring libraries to users.
2. Computers can be used to browse and access information
3. The information can be used together (resource sharing)
4. The information is easy to update (up to date).
5. Information is always available all day, all time, all life.
6. Allows new forms of information.

According to Rahman (2010) the advantages of digital libraries are

1. Save space
2. Multiple access
3. Not limited by space and time,
4. Collections can be in the form of multimedia
5. Lower cost.

Mobile – Library

At first we often heard that the mobile library is identical to the bookmobile. Along with the development of ICT and the number of users who use mobile, the term mobile can also be interpreted by cellular telephone (mobile). Because of the rapid development of cell phone functions that were only for telephone and SMS, then developed equipped with camera facilities, then can be for internet access and so on. Mobile can be interpreted as moving or can be moved freely and easily. And can also be interpreted an object that is high-tech and can move without using cables, such as smartphones, PDAs, tablets. Transformation or structural changes can be related to: users, services, ICT facilities, Human Resources/librarians, as well as functions & added value. In relation to the m-library, it will become a necessity for libraries to pay attention to the presence of mobile technology to improve library services. This is because users prefer to use the internet for direct access through various internet connections. Moreover, applications on mobile devices are increasingly sophisticated and much-loved by users. Gadget devices such as: BB, iPhone and Android have become the needs of users in the current era.

The concept of a mobile device

According to Fatmawati (2012), mobile library comes from the word mobile devices abbreviated as M which means cellphones and Library / Libraries which means libraries.

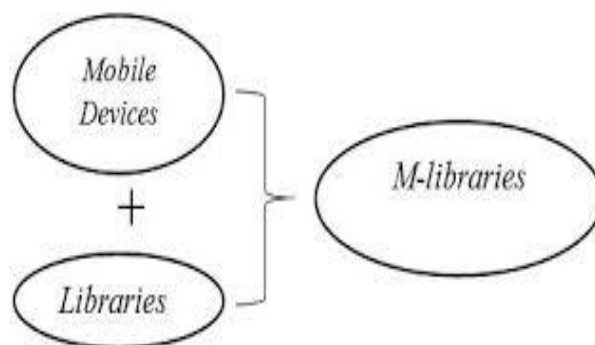


Figure 1 The concept of M-Library / M-Libraries .

Some of the scope of the concept of m-libraries according to Surachman (2011) are:

1. Access library contents or collections via mobile devices to access e-books, e-journals, e-databases and other special collections that are mobile.
2. The library sends short messages using SMS to answer questions and provide information to users.
3. Build a mobile interface for web systems and library catalogs
4. Use QRcodes to connect electronic collections that can be accessed through mobile devices.
5. Library staff or librarians use mobile devices in the library to support library questions.
6. Building a mobile-based application (Dedicated mobile app) to provide users with access to library collections or contents.
7. Utilization of augmented reality (AR) in a library by using a camera on a mobile device.
8. Use mobile devices to interact with library activities such as extending collection loans, checking service locations, ordering collections, performing tasks through mobile devices.

Types of Mobile Library Technology

According to Surachman (2011), there are 3 types of mobile technology platforms that are utilized in building m-libraries.

1. Mobile Phones Standard Platform

Platform that implements the use of standard features and technologies available on mobile device technologies such as SMS and telephone calls.

2. Mobile Web Version Platform

The library builds a mobile-based web that can be accessed by mobile users to obtain information available on the library.

3. Mobile Apps Platform

The development of the operating system on mobile phones led to the emergence of various mobile apps in accordance with the operating system. Because of this, several institutions or institutions developed a library application system to make it easy for users to use library materials owned by the library.

Mobile Apps allows mobile device users to install or setup special m-libraries in their devices so they can access the facilities that are in them.

The three platforms above have their own advantages and disadvantages, the choice of platform used depends on the library user and the library's ability to provide that platform.

3.0 UMSU Digital Library Application

One of the University Libraries that has developed technology that is still rarely done by other libraries is the Muhammadiyah University Library of North Sumatra (UMSU). UMSU Digital Library was launched since April 2018, this application is provided for android users which can be downloaded for free at the Google Play Store. This service can be used in general throughout Indonesia, by registering as a member and sending biodata through the UMSU Digital library application. Furthermore, users can access various e-books that can be read and get the references they need.

Features available on Digital Libraries UMSU

1. Can access thousands of books easily
2. e-pustaka, a superior feature of the UMSU digital library where users can visit frequently read books. So that it helps users in finding books that have not yet been read.
3. e-Paper, UMSU's digital library provides e-Paper features on each book. So users can read through smartphones at any time.
4. Copy menu, on each book that is read can be copied by means of the desired sentence block.

Technology Acceptance Model (TAM)

Acceptance Model Technology is a model of acceptance of information technology systems used by users. The technology acceptance model was developed by Davis. There are two main constructs of individual acceptance in information technology systems based on the Technology Acceptance Model, namely perceived usefulness and behavioral intention. If the technology system is useful and easy to use, then technology users will have an interest in using the technology (Jogiyanyo, 2007).

There are five constructs in the acceptance model technology, which are as follows :

1. Perceived Usefulness
perceived usefulness is a belief about the decision making process in using a technology that will help its performance
2. Perceived ease of use
Someone believes that using a technology will be free of effort.
3. Attitude towards behavior
Positive or negative feelings about the use of technology so that it can be used as an evaluation of technology users.
4. Behavioral Intention
Interest in technology user behavior in helping its performance.
5. Behavior
Perception of the use of technology, by users of information technology systems and the use of such technology.

4.0 Methodology

The research method used is descriptive qualitative. The study was conducted at the Library of the University of Muhammadiyah North Sumatra and in several places at the University of Muhammadiyah North Sumatra with a total of 10 respondents.

5.0 Results And Discussion

Based on the results of in-depth interviews with informants and the data analysis process, there are several categories related to the Technology Acceptance Model (TAM), whether UMSU digital library applications are accepted by users :

1. Perceived Usefulness
The use of the UMSU digital library application is requested by many users to register as members, both from UMSU academic community members and UMSU non-academic community members. The enthusiasm for using the UMSU Digital library application is very high.
2. Perceived Ease of Use
The ease of using the UMSU digital library application is felt by users in the form of effective access so that users do not have to come directly to the library but can directly access the application online.
3. Attitude Towards Behavior
The attitude of users of UMSU digital library applications from both academics and non-academics UMSU gives a positive attitude because of the advantages they get from the UMSU digital library.
4. Behavioral Intention
User interest in using the UMSU digital library application is very high. That is because the e-book collection owned by UMSU's digital library is mostly the latest issue so that users get up to date reference sources.
5. Actual Technology Use
The time period for using the UMSU digital library application can be seen through the system managed by the UMSU library. The system can find out who are the most active users in utilizing collections of library materials and most often access library materials at UMSU digital libraries.

6.0 Conclusions

Based on this research, it can be concluded that the UMSU digital library makes it easy for its users by utilizing applications due to the availability of e-book collections that can provide up to date reference sources. the availability of features that can facilitate users in finding the desired book topic. UMSU digital library information system that can provide an overview of the time period of using digital library applications and also the most active users in using collections in UMSU digital library applications.

However, some users give advice to the UMSU library in order to improve digital library applications to be better in terms of their use such as the addition of collections so that more variations in titles and also socialization and promotion in utilizing digital library applications effectively.

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Customer Driven Approach In An Organizational Learning: A Case of Information Agency

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ABSTRACT

In the era of industrial revolution 4.0, many organizations face challenges to survive in delivering product and services. Hence, there is a need for organization to equip them with knowledge and learn something new or learn from past experience in order to maintain its continuity. As such, information agency also faces a constant struggle in making their role and responsibility fully functional, easily accessible and are operating to the best of their abilities to fully aid in helping their users. This study aims is to investigate how customer driven will affect organizational learning (OL) in the information agency. OL involves individual who have to learn and those who make the shift from traditional organization to learning organizations. It specifically focuses on information professionals in information agency who play their role to ensure that they are still relevant and align with the current needs of user. The study is based on data obtained from survey questionnaires distributed to information professionals in one of the selected information agency in higher learning institution on the aspect of fulfilment of customer expectation and needs through learning in organization for their future roles. The data was analysed to evaluate and determine the relationship of customer driven needs with OL capabilities. The study suggested shared vision & mission, dialogue/communication and ICT are the main contribution on the customer driven services in information agency. It is hoped that the study can contribute to information professionals to improve their services and ensure it is still relevant and at par with the changes that take place.

Keywords: *information agency, customer driven, organizational learning, information professionals*

1.0 INTRODUCTION

The new era of industrial revolution 4.0, has brought a lot of challenges. One of it is to survive in market product and deliver services to customers. Hence, to maintain organizational continuity, it must equip itself with knowledge and learn something new or learned from the past. Esen, Aşık Dizdar, & Ege (2017) expressed that organizations have been forced to create their own action in order to survive and remain competitive. Such is where organization adapts and learns, which is called as learning organization (LO), a solution for organizations to survive in today's fast changing environment (Khaled Ateik Saeed Abdullah & Norliya Ahmad Kassim, 2010).

Gherardi (2015) defined that organizational learning (OL) is a combination of learning which covers three components; namely knowledge, skills and expertise. It is an exploration of organization by using knowledge and experiences. While Argote (2012) indicated that OL is a process through which an organization creates, maintain and transfer knowledge to correct errors and improve them continuously. Many successful organizations such as Google, Amazon.com, Allianz Insurance, Edward John and others organization learn and change their business effectively by using current technology changes (Sarder, 2016). The highly sought-after organizations need to equip with knowledge and adapt itself with sophisticated environment (Sarder, 2016) in order to serve customers of diverse needs and requirement and at the same time have to compete for business intensively (Pynnonen, Hallikas, & Ritala, 2012), in this case is library institution. On the other hand, Kloda, Koufogiannakis, & Brettle (2015) stated in order to reach maximum library performance it is important to fulfil the patrons needs.

Academic libraries that apply OL will increase innovation (Islam, Agarwal, & Ikeda, 2014) and drive optimize effectiveness (Chidambaranathan & Swarooprani, 2015). Saadat & Saadat (2016) mentioned that OL is capable to build flexible dynamic learning organization and as a key success factor to enhance efficiency. This task is possible with information professional of people-focused roles to manage learning resources while keeping the library users' needs in mind. According to Youssef, Ramirez, & Dolci, (2012) information professionals need to acquire, create, store, share and utilize knowledge to make it as a central productive and strategic asset for the user and library. Information professional are trained to be experts in information searching, selecting, acquiring, organizing, preserving, repackaging, disseminating and serving the knowledge assets in the library. As a good knowledge worker, information professional is key factor in improving compatibility (Edwards, Bell, Winfred Arthur, & Decuir, 2008).

2.0 PROBLEM STATEMENT

Academic libraries have long enjoyed their status as the “heart of the university.” However, in recent decades, higher education environment have changed and information professional no longer can rely on their stakeholders if they unable to perform their job and to show how important are they towards university (Oakleaf, 2010). Nowadays students prefer to searching and finding information electronically through smartphones because of faster and easily retrieve information makes they no longer visit the library (Nor Azma Laila, 2019). Report by UiTM library, amount of library visitors had decline in 2018 as compared to in year 2017. There are 3,563,185 of library visitor in 2018 while in 2017 there are 3,606,627 visitor, the amount decrease 1.2% (Perpustakaan Tun Abdul Razak, 2019).

It is proven that OL are well performed (Battor & Battour, 2013; Hussein, Mohamad, Noordin, & Ishak, 2014; Jiménez-Jiménez & Sanz-Valle, 2011; Mohd Shamsul Mohd Shoid, Norliya Ahmad Kassim, & Mohd Idzwan Mohd Salleh, 2011; Shoid et al., 2011) and survive in today's challenging environment (Bertram-Elliott, 2015; Limwichitr et al., 2015). However, many studies focus on organization rather than customer driven whereas the purpose of libraries is to fulfil and provide space and services to their customer (Nor Azma Laila, 2019).

The purpose of this study is to investigate how customer driven will affect OL in library. Focusing of this study is in information professional because their role of is to meet the need of teaching, learning and research in the university. The aim of the library is to ensure that the university student will become knowledgeable person and excel in achievement. LO in academic library act as group of people working together to enhance library capacities in order to create the best results for their sustainability. OL involves individual who have to learn and those who make the shift from traditional organization to learning organizations and would be

able to think critically and creatively (Yadav & Agarwal, 2016a).

3.0 RESEARCH OBJECTIVE AND QUESTION

To study the relationship of OL element with customer expectation and needs

To identify OL capabilities with customer expectation and needs

To examine the most significant OL capabilities that drive customer needs

4.0 SIGNIFICANT OF RESEARCH

The finding of this quantitative study will drive towards the relationship of OL with customer driven in the library services. In addition, this study aims to discover customer driven that can contribute information or knowledge for the OL in library. As an OL, library will facilitate with all members in organization to transform itself. Hence, the achievement and success of the organization come from the effective and efficient of leader, staff, resources, technology and customers. Therefore, this study tries to find out the relationship of customer driven towards OL. It is important for the library to continue their role and still relevant in many years.

This study is significant because it provides accurate portrayal of OL towards customer driven approach (expectation and needs). In addition, it identifies the highest factors that reflect customer driven approach in order to make successful of OL. This study discovers the important of OL in order to fulfil the customer needs for continuity purposes and competitive advantage in the challenging era. That's why, OL is suggested to foster information professional in their task capability. This research aimed to test whether there is a relationship between OL and customer driven.

5.0 LITERATURE REVIEW

Staley & Malenfant (2010) explained information professional must adapt their libraries to the current changes. They have to predict the future so that they can start to take appropriate action from now. From OL, libraries will be able to learn and organize the library wisely to meet the needs of their customers. Schwab (2017) declared fourth industrial revolution will be powerful and impactful to many organizations, if the organization unable to consistent and positively take the opportunities and challenges of this revolution then it will fail. Sarder (2016) gave an example of one of the huge companies like Blockbuster which ran out of their business in September 2010 because it failed to keep up with the changes in technology and gave customer options to accessed entertainment. Technology is changing so rapidly and the academic library as well as the information professional itself has to take fast action to keep up and stay ahead in providing their services for the university and it will happen from OL.

Organizational Learning (OL) is referred to as organizational learning capability to practice appropriate and accurate management structure with learning encouragement (Shoid et al., 2011), while Gherardi (2015) as metaphor of the combination of organization and learning which enables organization to deal with knowledge and experiences. While, Haley (2010) stated that LO must adapt and response with the current changes in order to continually survive and grow. Ang & Joseph (1996) distinguishes between OL and LO as a process versus structure.

Academic library plays as a heart of the university to support and promote teaching, learning and research for institution users. To ensure library aligning with the needs of users, libraries need to collect information from users and investigate the information to demonstrate the library's value and provide the collection for continuing improvements (Oakleaf & ACRL, 2010). Senge (1990) listed five disciplines in OL which are: personal mastery, mental models, team learning, shared vision and system thinking. While Hishamudin et al., (2010) come out with OL capabilities as: shared vision and mission, organizational culture, teamwork cooperation, transfer of knowledge and information communication technology. Another OL framework develop by Khalib et al., (2015) introduced four component: organizational culture, leadership, dialogue and participative decision making.

Theoretical Framework

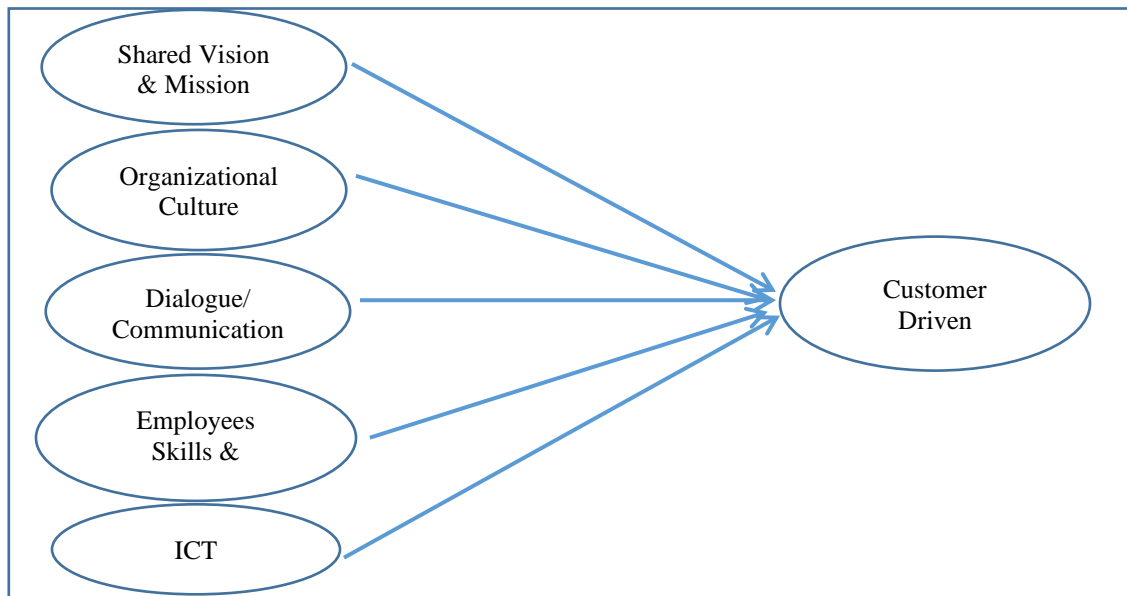


Figure 1: Theoretical framework of Customer Driven Approach in OL

6.0 RESEARCH METHODOLOGY

This study applied quantitative method to identify the relationship of OL element with customer driven needs that contributes to knowledge needed by the library. It is also to examine the most significant OL capabilities that drive customer needs in order to increase organizational performance. Survey design through survey questionnaire is used to obtain information on beliefs, attitudes, and opinions. Data were collected at a single point in time, analyses made on participants responses as a single group, and draws conclusions from statistical result (Cresswell, 2008). The questionnaire is developed for measuring each variable using corresponding Likert scale anchored as 1 for “Strongly Disagree”; 2 for “Disagree”; 3 for “Neither Agree Nor Disagree”; 4 for “Agree” and 5 for “Strongly Agree”. According to Creswell (2014) a survey design is a quantitative research of trends, attitudes, or opinions of a population by studying a sample of that population. It is to test the impact of a treatment (or an intervention) on an outcome, controlling for all other factors that might influence that outcome. Questionnaire will create in google form which it is not involving any cost, convenience, confidential and easy. User familiar by using internet survey (Sue & Ritter, 2012).

The population of this study was the middle management in UiTM Libraries; librarians and senior librarians. Total amount of respondents was 92.

Table 1: Population size by branch

PTAR UiTM Branch	No. of Librarian
Shah Alam	34
Selangor	13
Perlis	2
Kedah	3
Pulau Pinang	4
Perak	3
Negeri Sembilan	5
Melaka	7
Johor	2
Pahang	5
Terengganu	4
Kelantan	4
Sabah	3
Sarawak	3
Total of population	92

The main instrument for data collection in this study was a questionnaire and the analysis were essentially quantitative. The self-administered questionnaires, after collection, data were checked for completeness, comprehensibility, consistency and reliability, a step referred to as cleaning the data. Analysis of data was made using Statistical Package for Social Science software version 25. Based on the data collected, hypotheses were tested to indicate the relationship between independent and dependent variables. It also analysed the validity and reliability result, analysis respondent's demographic profile, descriptive result, hypothesis testing, regression analysis and the significant of OL capabilities towards customer driven.

6.1 RESEARCH HYPOTHESIS

- H1. There is a significant relationship between organizational cultures with customer driven
- H2. There is a significant relationship between shared vision & mission with customer driven
- H3. There is a significant relationship between dialogues with customer driven
- H4. There is a significant relationship between employees' skills & competencies with customer driven
- H5. There is a significant relationship between ICT with customer driven

6.2 VALIDITY TEST

The *Sphericity Barlett and Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy (MSA)* were used to test the correlation between the variables to evaluate the suitable data for factor analysis. The test indicated that it was significant of the correlation between variables and the factor analysis was appropriate. Table below shows the test result for *Sphericity Barlett and Kaiser-Meyer-Olkin (KMO)* is 0.856 exceed 0.6.

Table 2: Sphericity Barlett and Kaiser-Meyer-Olkin (KMO) test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.856
Bartlett's Test of Sphericity	Approx. Chi-Square	4217.110
	df	1176
	Sig.	.000

6.3 RELIABILITY TEST

From the test, the reliability analysis is accurate and consistent with the result more than 0.7. The highest *Cronbach Alpha* is 0.953 for the 'Organizational culture' while the lowest is 0.906 refer to 'Organizational vision and mission'.

Table 3: Alpha Cronbach Reliability test

Factor	<i>Cronbach's Alpha</i>	N of Items
Organizational vision and mission	.906	6
Organizational culture	.953	11
Dialogue / communication	.939	8
Skills & competencies	.932	9
Information Communication Technology (ICT)	.919	6
DV - User expectation	.938	9

6.4 CORRELATION

- H1. There is a significant relationship between organizational cultures with customer driven. Correlation between organizational cultures with customer driven is 0.784.
- H2. There is a significant relationship between shared vision & mission with customer driven. Correlation between shared vision & mission with customer driven 0.755.
- H3. There is a significant relationship between dialogues with customer driven. Correlation between dialogues with customer driven 0.784.
- H4. There is a significant relationship between employees' skills & competencies with customer driven. Correlation between employees' skills & competencies with customer driven 0.742.
- H5. There is a significant relationship between ICT with customer driven. Correlation between ICT with customer driven 0.804.

Based on this finding, all variables have positive value and very strong correlation with dependent variable. The hypotheses were accepted with the correlation value above 0.5.

Table 4: Correlation

		Correlations					
		Customer_ expectatio n_ driven	Share_visi on_mision	Organizati onal_cultu re	Dialogue_ communic ation	Skills_ competenc ies	ICT
Pearson Correlation	Customer_expectati on_driven	1.000	.755	.784	.784	.742	.804
	Share_vision_misio n	.755	1.000	.693	.693	.817	.694
	Organizational_cult ure	.784	.693	1.000	1.000	.704	.761
	Dialogue_communi cation	.784	.693	1.000	1.000	.704	.761
	Skills_competencie s	.742	.817	.704	.704	1.000	.704
	ICT	.804	.694	.761	.761	.704	1.000
Sig. (1-tailed)	Customer_expectati on_driven	.	.000	.000	.000	.000	.000
	Share_vision_misio n	.000	.	.000	.000	.000	.000
	Organizational_cult ure	.000	.000	.	.000	.000	.000
	Dialogue_communi cation	.000	.000	.000	.	.000	.000
	Skills_competencie s	.000	.000	.000	.000	.	.000
	ICT	.000	.000	.000	.000	.000	.
N	Customer_expectati on_driven	75	75	75	75	75	75
	Share_vision_misio n	75	75	75	75	75	75
	Organizational_cult ure	75	75	75	75	75	75
	Dialogue_communi cation	75	75	75	75	75	75
	Skills_competencie s	75	75	75	75	75	75
	ICT	75	75	75	75	75	75

The significant value showed the value 0.000 which is smaller than the value of p (p-value) at significant level of 0.01 (1-tailed), the proposed hypotheses were then accepted.

6.5 REGRESSION

Regression analysis was made to identify the best predictor or the dominant evaluation criteria that influence customer driven. It also identified the relationship between combinations of all evaluation criteria. Regression analysis sought to model the dependent variable on one or more explanatory independent variables. It is a mathematical model developed explaining how variation in an independent variable alters the value of the dependent variables when all independent variables are fixed.

Table 5: Regression analysis

Model Summary ^b									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change
						F Change	df1	df2	
1	.870 ^a	.758	.744	.23449	.758	54.739	4	70	.000

a. Predictors: (Constant), ICT, Share_vision_mision, Dialogue_communication, Skills_competencies

b. Dependent Variable: Customer_expectation_driven

The result of regression analysis on the table above showed predictors (constant): ICT, share vision mission, dialogue/communication, skills competencies influenced the customer driven needs. The R Square value 75.8% indicated it was relevance with the value of F 54.739. To conclude, 75.8% influenced customer driven needs. It remaining ($100 - 75.8 = 24.2$) 24.2% was influenced by other predictors.

6.6 ANOVA

Analysis of variance (ANOVA) is a statistical test to understand whether the differences between the means scores of several groups within a sample is statically significant.

Table 6: ANOVA

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.040	4	3.010	54.739	.000 ^b
	Residual	3.849	70	.055		
	Total	15.889	74			

a. Dependent Variable: Customer_expectation_driven

b. Predictors: (Constant), ICT, Share_vision_mision, Dialogue_communication, Skills_competencies

Anova analysis show a significant value is 0.000. For dependent variable: customer expectation/driven, predictor independent variable, it was 0.000 mean, indicating the overall framework is accepted. Based on this finding, the study listed five criteria of customer driven approach in organizational learning at PTAR UiTM. However, only four criteria were significant on customer driven in PTAR as organizational learning.

6.7 COEFFICIENTS

Table 7: Coefficients

Coefficients ^a											
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	.494	.259		1.910	.060					
	Share_vision_mision	.210	.102	.221	2.044	.045	.755	.237	.120	.296	3.383
	Dialogue_communication	.237	.085	.277	2.803	.007	.784	.318	.165	.355	2.816
	Skills_competencies	.106	.104	.112	1.019	.312	.742	.121	.060	.285	3.515
	ICT	.315	.086	.361	3.652	.000	.804	.400	.215	.354	2.824
a. Dependent Variable: Customer_expectation_driven											

The result of Standardized Coefficients Beta has been calculated as below:

Customer Driven = B1 (Organizational share vision & mission) + B2 (Dialogue/Communication) + B3 (Skills and competencies) + B4 (ICT)

Customer Driven = 2.21 (Organizational share vision & mission) + 2.77 (Dialogue/Communication) + 1.12 (Skills and competencies) + 3.61 (ICT)

Finding for t=value and significant for each independent variable are: Organizational share vision & mission: t = 2.044, 0.045 < 0.05; Dialogue/Communication: t = 2.803, 0.007 < 0.05; Skills and competencies: t = 1.019, 3.12 > 0.05; ICT: t = 3.652, 0.00 < 0.05.

To conclude, Organization share vision & mission, Dialogue/Communication and ICT were the most and strongest factors contributed to customer driven with p – value < 0.05.

7.0 SUMMARY

The quantitative exploratory analysis included validity test, reliability test, demographic analysis, descriptive statistical analysis, correlation and regression analysis, with ANOVA analysis and the last test was coefficients. The result of the tested showed on the table below covering the entire research objective, research question, hypothesis and the result.

Table 8: Result of the study

Research Objective	Research Question	Hypotheses	P-Value	Result
RO1. To study the relationship of OL element with customer driven	RQ1. What is the relationship of OL element with customer driven?	H2. There is a significant relationship between shared vision & mission with customer driven	0.045	Support
RO2. To identify the aspect of OL capabilities with the customer driven	RQ2. Are there any most significant OL capabilities that drive customer needs?	H3. There is a significant relationship between dialogues with customer driven	0.007	Support
RO3. To examine the most significant OL capabilities that drive customer needs	RQ3. Which OL capabilities that drive customer needs?	H5. There is a significant relationship between ICT with customer driven	0.000	Support
		H4. There is a significant relationship between employees' skills & competencies with customer driven	3.12	Not Support
		H1. There is a significant relationship between organizational cultures with customer driven	No value (excluded variable)	Not Support

8.0 RECOMMENDATION & CONCLUSION

This study resulted from five variables with five hypotheses to discover but only three variables were accepted with strong significant value. There were shared vision & mission, dialogue/communication and ICT. These three components contributed strongly on customer driven towards OL in information agency. Limwichitr, Broady-Preston, & Ellis, (2015) mentioned that libraries have to adapt with rapid changes in environment through OL for improvement and increase their performance (Haley, 2010; Shoid, Kassim, & Salleh, 2011).

Vision and mission in the organization must be reliable, can be achievable and directed to be ultimate target. Vision statement aspires for future achievement and what organization wants to be while mission statement focuses on today and what the organization does. This aspiration must be shared and understood by staff and the outcome is shown to customers. From the vision and mission, information agency is directed to prepare the best services for customers. Shared vision means shared 'pictures of the futures' of the organization to show its commitment Senge (1990).

Dialogue or communication is an important channel to deliver or gain any information to information agency in terms of improving their services. Information agency have all means to deliver and channel all information through Facebook, Instagram, twitter, chat with information

professional, customer feedback system, customer feedback complaints and others channel that information agency provide to their customer. All feedbacks should be taken into consideration as to provide the best services to customers. Internal communication applied in information agency such as meeting, discussion, email, talk, sharing session and other channels must be used to make things work. Effective communication in OL will give effect on organization's success

Accommodating customers with ICT is most pivotal for librarians. It can help not only customer but information agency itself in daily transaction. Nowadays, many people access the information agency collection thru internet and they need the information in full text, easy to reach and accessibility anytime and anywhere. In delivering product and services, information agency have to update with current technologies (Mohd Shamsul Mohd Shoid et al., 2011).

The major contribution of this study is OL as the customer driven approach in information agency. The finding of this study is important for information agency to enhance and improve their services toward customer driven needs. In order to survive, information agency as OL must keep learning to compete with other organization, improving services and ensure it is still relevant facing environmental changes.

Further studies are proposed to discover another framework to understand more element influencing customer driven toward OL. The study can be extended to other service-based organization, public and private library for comparison. Benchmarking against customer expectations are required to measure standard of the organization.

In conclusion, the finding of the study is important especially to the information professionals and information agency to take further action in achieving the OL's goals and survive in a competitive environment. OL would survive if mistakes are learnt, initiative and effective action from experience are taken to fulfil customer expectation and need to ensure that library still relevant in many more years to support teaching, learning and research in the university.

IFLA WLIC 2018 Volunteers: Sharing Experience from Social Media Assistant Team

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ABSTRACT

Social media is playing an important role to be the most significant mediocre for marketing, communicating and endorsing. A proper task force team on social media may lead to systematic social media content during the event or any activities. The job scope of the social media team should assimilate with the content expert, photography, broadcasting, copywriter, editing skills and many more. Social media content also should be aligned with the need for copyright and ethical issues. In many ways, complete social media experts should be skilful and sensitive to current issues. Each of the tasks will ensure the quality of social media content. Therefore, this paper will present the experience from the IFLA WLIC 2018 social media team. The objective of this conceptual paper is to share the structure of the job scope of the social media team, including the scheduling, quality checking, medium, job scope numerous more. Not only that, the intention of this paper also is to provide a proper guideline on social media setup for any libraries and information centre in Malaysia. Constructed based on literature search and observation, there is no comprehensive social media task force had been developed in any libraries in Malaysia. Hence, this knowledge sharing on IFLA WLIC 2018 social media team might give an idea for the social media task force in any libraries and information centres in Malaysia. Besides presenting the challenge of the IFLA WLIC 2018, few recommendations on the social media task force team are also documented for future improvement.

Keywords: Social Media, Volunteer, Content Creator, Librarian, Library

1.0 INTRODUCTION

IFLA World Library and Information Congress (WLIC) 2018 was a successful annual event held by IFLA. Malaysia had been selected to host IFLA WLIC 2018 for the first time. This event involved 3,500 librarians from 112 different countries. This congress is the international flagship professional and trade event for the library and information services sector around the world.

The Malaysian National Committee of the International Federation of Library Associations and Institutions (IFLA) World Library and Information Congress (WLIC) 2018 were looking for volunteers who have the time, dedication and enthusiasm to help them deliver this major international event. Most important criteria were professional, committed, hardworking, reliable and culturally sensitive. Every year, almost 300 volunteers donate their time to help make the IFLA WLIC a success. One of the critical successes of this congress was the support of the volunteers. It was 300 volunteers who joined along two weeks to focus on the preparation and duties for the congress.

One of the vital volunteer teams was the Social Media Team who was responsible for broadcasting and updating all activities, moments and occasions during the congress. The team faced several challenges in dealing with many circumstances that might contribute to the positive and negative impact on congress. Volunteers assist on-site in several areas depending on their interests, including the speakers' room, media centre, registration, in plenaries, exhibition hall, poster sessions, cultural evenings. Volunteers are a key to creating a positive and welcoming atmosphere to delegates from all over the world and assisting the hosts to deliver a professionally run Congress.

The process of work by the Social Media Team members was appropriately managed and led by proper instructions. The handling of various tools and types of equipment would support the work process to be eased and manageable without extra cost. The success of this team was a good relationship among the members, the right motivation and direction, and fulfil the congress objectives.

1.1 Criteria & Process selections

Applications to volunteer were open from October 2017 – January 2018. The successful applicants were notified by March 2018.

Volunteers need to register their details on-line. Example of the question online

- i. Why do you want to volunteer now?
- ii. What has motivated you to be a WLIC IFLA 2018 volunteer?
- iii. Do you have any particular skills or qualities that you could use in your voluntary work?

All of the volunteers need to go through several stages process like:

- i. Online applications
- ii. Successful notifications
- iii. Interview process
- iv. Offer letter & Volunteer Acceptance Letter
- v. Volunteer series briefing
- vi. Training & workshop series
- vii. Visits and final briefing at KL Convention Centre

Table 1: Required number of volunteers and skills

4-6 writers	Office / IT Skills, high level of experience with Facebook and Twitter
3-4 Photographers	Excellent photo making abilities, must bring own equipment (camera, not smart phone)
1 Videographer	Excellent video making skills (shooting, editing), excellent interviewing abilities, must bring own equipment
1 Social Media Assistant	High level of familiarity with Flickr, excellent visual and organizational skills

1.2 Social Media Assistant Team

• *Team Supervisor*

Mr Amirul Firdaus Zilah led social media assistants' team as the team supervisor. He is also a Librarian at the University of Kelantan Malaysia based on his experience in the management of information systems and at the same time experience in the field of digital marketing with his role as Secretary of the Marketing Committee of the Malaysian Scholarly Publishing Council. He is responsible for coordinating all tasks given by ensuring all important IFLA WLIC 2018 sessions fully covered for documentation purposes.

Supervisors held a series of discussions with Chief Volunteers, Mr Azahar and Mr Ibrahim to finalise the composition of the expertise and details of the relevant tasks for this social media team. It was implemented gradually over the six months before the IFLA WLIC took place. At the same time, the supervisor was given the opportunity and privileges to screening all the volunteer candidates who applied and also identify those who were skilled and had technical expertise in photography, writing and reporting to be invited for joining this task force.

• *Team Members*

Members of the IFLA WLIC Social Media Team are 21 people, including Supervisors. All of them selected from the best candidates applied whose combination of many skills, skills and experiences that have poured in dedication and commitment throughout the congress. The team consists of retired librarians, librarians, lecturers and students in the field of librarianship. The members of the IFLA WLIC 2018 Social Media Team are as follows:

Table 2: Social Media Team Members

No.	Name of The Team Members	Position
1.	Mohd Ikhwan B Ismail	Librarian
2.	Mohd Faizal B Hamzah	Librarian
3.	Dzulhailie B M Bakri	Librarian
4.	Ainnudin B Ja'afar	Assistant Librarian
5.	Dzulhailie B M Bakri	Librarian
6.	Jasmine Gires	Student
7.	Kee Syh Her	Librarian
8.	Linda Yip	Librarian
9.	Mohamad Nizam B Abang Takip	Library Assistant
10.	Mohd Ikhmil Firdausz B Mohd Hanif	Librarian
11.	Mohd. Norshazlin B Sa'adun Nazir	Librarian
12.	Molly Chuah	Retiree
13.	Muhammad Nooramin B Mohd Hassan	Librarian
14.	Noor Asmah Bt Azan	Librarian
15.	Nur Fatin Adila Bt Muhamad	Student
16.	Nurizz Eireen Bt Shaiful Nizam	Student
17.	Nurul Diana Bt Jasni	Librarian
18.	Nurul Hanisah Bt Baharin	Student
19.	Sufy Rabea Adawiya Bt Idris	Lecturer
20.	Syafiq Ridzuan B Abdul Hamid	Librarian



Figure 1: Social Media Team Members with IFLA Communications Team

1.3 Task & Responsibility

This group was divided into several tasks such as writers/reporters, photographers, videographers and social media assistants.

- **Writers/Reporters**

Members of this team will report on highlights of the Congress based on a detailed schedule created by IFLA Headquarters. Under the direction of the Social Media Coordinator, they will also have the freedom to report on other events, do interviews (e.g. Facebook Live), make mobile uploads with the posts (photos) and make spontaneous comments on sessions, poster, exhibits and others.

Writers are expected to use their own devices (smartphones, tablets, laptops and any suitable devices) for posting to social media and can utilise the free wi-fi in the conference centre.

- Photographers

Photographers are dedicated to visually documenting the Congress. They will be supplied with a detailed list of events to cover but will rely on good judgement and skills, great photos often emerge spontaneously (using their cameras, SD cards, lenses, chargers and any relevant types of equipment) throughout the week.

- Videographer

Conduct and film short interviews, record speakers at high-profile sessions, create short clips, edit footage and prepare the distribution on the web. Bring their equipment, laptop or portable device with editing software. Appropriate content will be uploaded to the Vimeo platform.

- Social Media Assistant

Assists the social media coordinator, assists the volunteers, especially photographers and videographer, select upload, tag and organise photos for Flickr.

2.0 Social Media and Preparation

The preparation before the program started is crucial to ensure the implementation of the task during the process of work will be going well and smoothly. Several plans had been discussed among the volunteers in the team and guided by the supervisor. Many things should be considered for preparation while no budget given by the management. The team must think and plan to use any tools and platforms which are minimum cost or free. In the end, the team managed to get the solution to have all the support tools and platforms without use any cost. The vital elements in determining the support tools and platforms for the process of work are ease of use and the participants of the program will touch whatever the team shares in social media platforms.

2.1 Social Media Platforms

Traditionally, people used the website or blog to disseminate updated information on the internet. However, nowadays people are more comfortable using social media platforms such as Twitter, Facebook, Instagram and YouTube because it is easy to create, modify, discuss and share the content and information. The social media platforms also can significantly impact the updated information to the participants. For this reason, the team decided to choose one social media platform that was relevant and comfortable to the participants and that platform was Facebook.

Before the program started during the preparation and discussion period, the team decided to create one fan page on Facebook named *WLIC 2018 Kuala Lumpur*. Up to this writing, this page has 475 total page likes. The team handled this fan page, and it was supporting the fan page created by the IFLA committee called *IFLA - International Federation of Library Associations and Institutions*. In other words, most of the photos and information about the program have been updated by the team using the *WLIC 2018 Kuala Lumpur* fan page frequently from the first day until after the end of the program.

The administrators of this fan page were selected from the team members who have a Facebook account and are capable of handling the fan page. Each of them could update all information from

their account and use their smartphone or laptop. The update process could be smooth and comfortable for the team members to update the information. Many photos have been posted on this fan page with the simple caption to ensure the team will cover all the events' moments and news, and the audience could have the latest information during the period of the program.

The posts of this Facebook fan page had been shared by other Facebook fan pages and groups too such as *Persatuan Pustakawan Malaysia (PPM)*, *Perpustakaan Negara Malaysia* and *Sembang Pustakawan*. The team also had to share the other personal account's posts to this Facebook fan page that showed any moments, photos and information that related to this program.

2.2 Storage Platform

While the process of gathering the information, especially photos during the program, the team should decide the proper storage platform. The purpose of the storage platform was to store all works, especially the writing and photos. This storage platform would support the team in gathering, obtaining, sharing, archiving and re-using those items.

As mentioned before, the chosen tools and platforms must avoid the relation of cost consuming because of no budget allocation for the team. Thus, the team decided to use Google Drive as the storage platform within the program. While storing valuable photos and files related to the program, the need for a storage platform to include the large and oversized files, especially photos, should be concerned. Every photo taken by the photographer was around 2-12 megabytes in JPEG/RAW format. Therefore, the team should think to strategise the way to store and use them without doing offline, and Google Drive would benefit the team to use at any time and place.

Google Drive offers only 15 gigabytes of free storage for one account. Indeed, Google Drive allows the user to upgrade the storage up to 30 terabytes with specific fees. However, the team created up to three accounts for Google Drive to obtain more space for storage for this program. It means that the team has 45 gigabytes for three accounts which cover around 2000 photos during the program without pay any fees for more space.

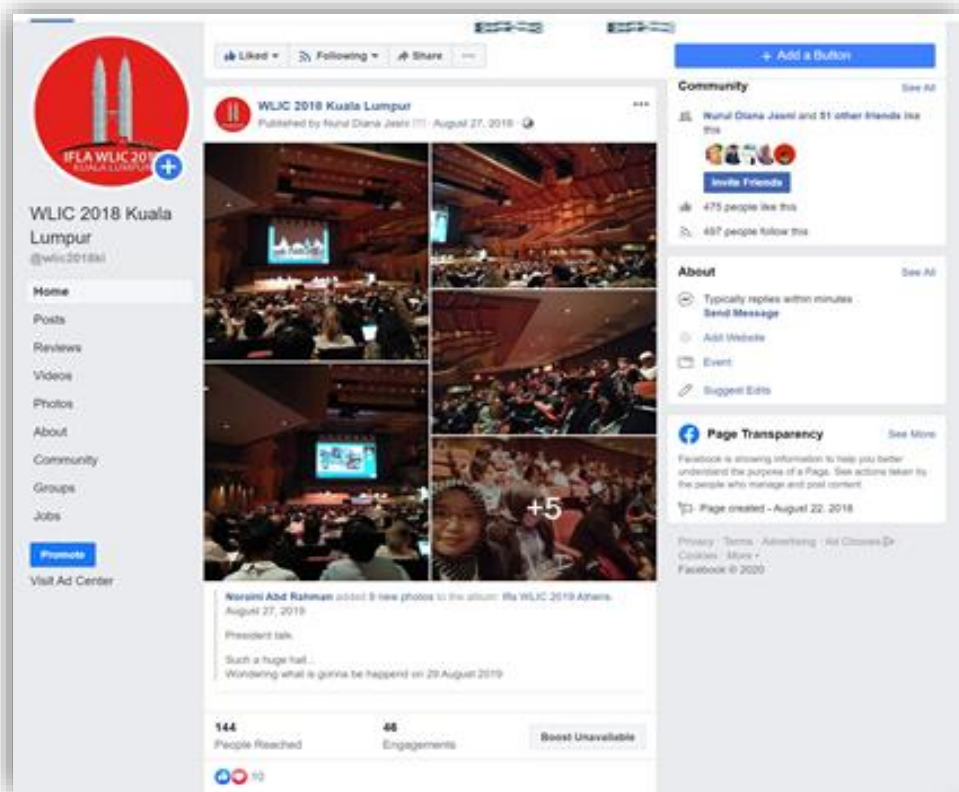


Figure 2: Facebook fan page *WLIC 2018 Kuala Lumpur*
<https://www.facebook.com/wlic2018kl>

2.3 Photo Hosting Platform

Flickr is an image and video hosting service that allows the user to store and share the photo and video on the internet with easily accessible. The viewer can access without the need to register or create the account. For this program, the selected photos had been chosen which were the best among the best photos to upload and share in the official Flickr of *The International Federation of Library Associations and Institutions* (<https://www.flickr.com/people/ifla/>). The team uploaded the photos with captions for every session that was held along the program.

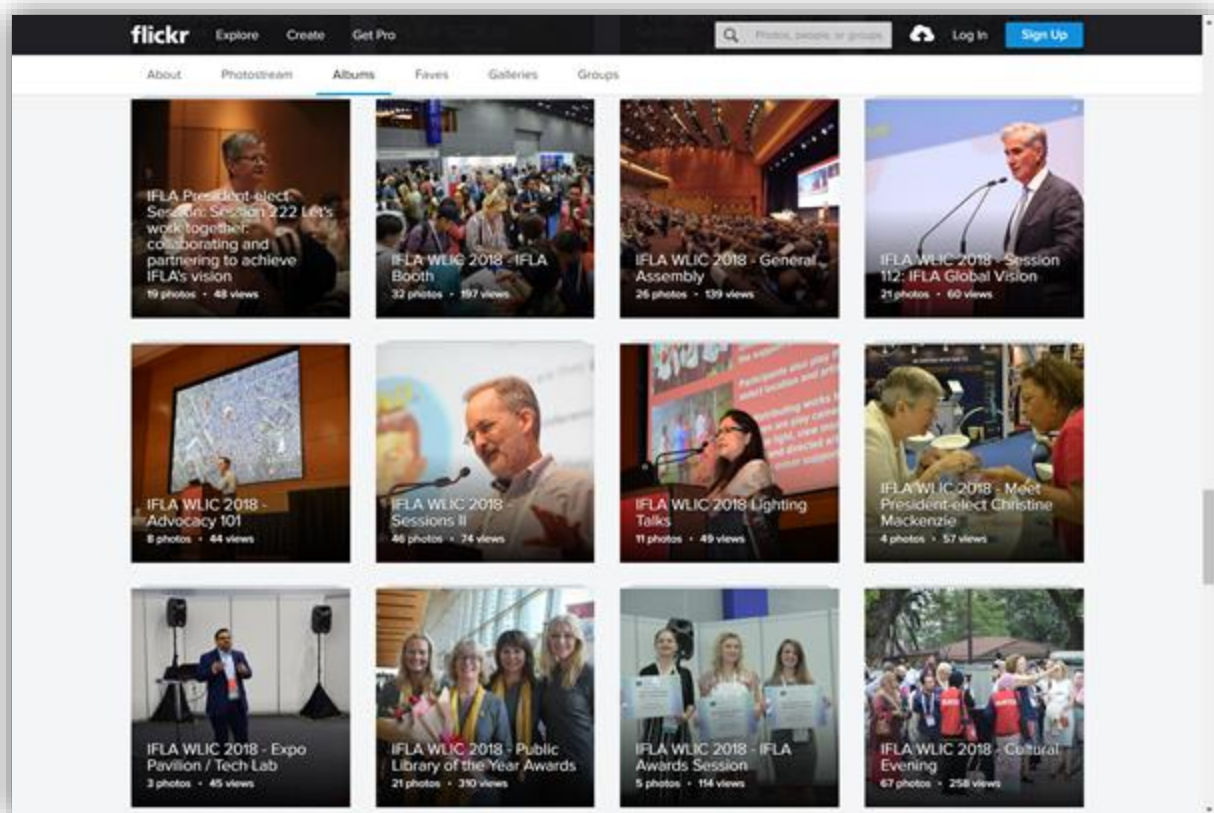


Figure 3: Official Flickr of *The International Federation of Library Associations and Institutions*
<https://www.flickr.com/photos/ifla/albums/with/72157700260113164>

2.4 Communication Platform

The communication among the team members is critical to ensure the information from the supervisor to the team member and among them would be successfully delivered and understood. Every member of the team already has the application WhatsApp as a regular online communication platform on their smartphone. Therefore, the team decided to use WhatsApp as an official online communication platform among the team members from the first day until the end of the program.

The supervisor created the group in WhatsApp that had been named as *IFLA WLIC Soc. Media Team* and invited all the team members to join this group. Therefore, all the activities, instructions and comments would be delivered in this group. Meanwhile, this platform was really helpful whenever the team members were located at different places within the program. For example, the supervisor will be giving instructions and schedules through WhatsApp. Thus, the team members would easily understand and follow those instructions.

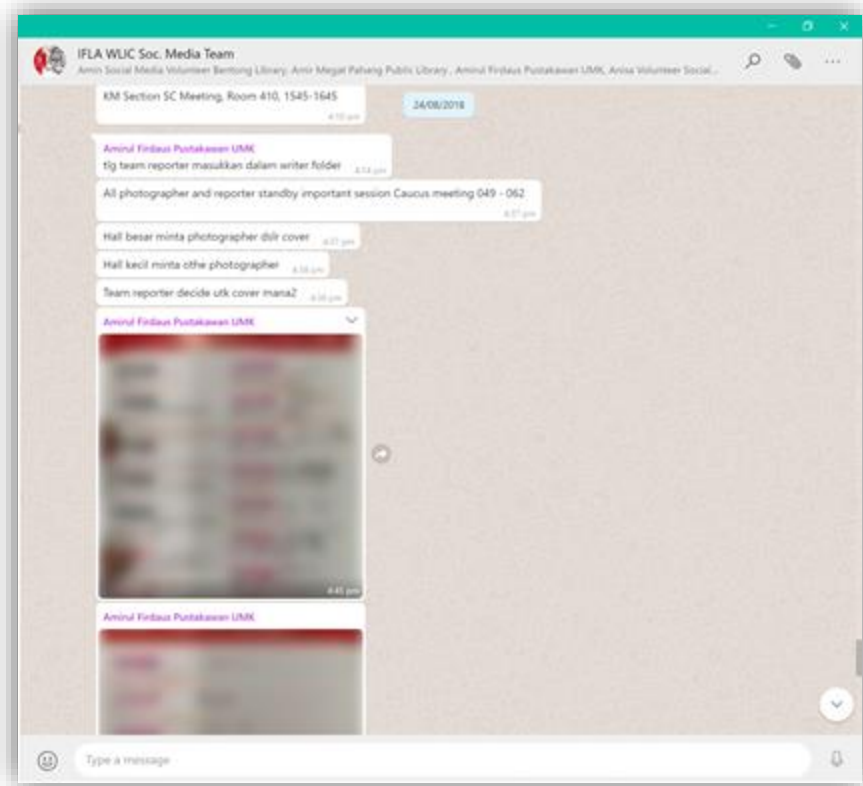


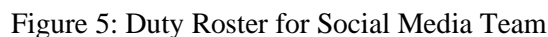
Figure 4: Group Whatsapp *IFLA WLIC Soc. Media Team*

2.5 Time Table/Duty Roster

Each supervisor was instructed to provide a complete schedule of each assignment. Each assignment given to each volunteer or group member is based on the role combination of the reporter and the photographer. Each task given is based on equal workload but in some cases, few of the most skilled team members will be requested to cover for specific sessions that are considered as essential and specialised by the IFLA Communications Team. However, flexibility is a critical element that helps all members of this team do their task effectively.

Initially, the supervisor had prepared a complete task schedule with a shift in proportion to the shift. However, during the first session of the meeting and after consultation with all members, there were constraints that if left untreated would cause difficulties in the assignment. This situation happened is due to the lack of experience, health problems and opportunities for members to participate in specific conference sessions and new task implementation suggestions that will make each task more manageable.

As a result, a more flexible approach is taken that is the schedule of assignments provided each night after the event ends each day. Supervisors have taken the task of giving assignments to all members by using the IFLA WLIC 2018 program handbook for the members of the group on duty

[illegible]

The Social Media Team service has been praised by various parties, including the IFLA Communication Team. Among their statements in this regard, "IFLA WLIC 2018 Social Media Team volunteers have set a new stage in social media management tasks and documentation on IFLA WLIC organising that will surely be a guide for future organisers". Overall, 42.6% of the respondents got ongoing news about the congress from the Facebook page, 19.9% via Twitter. 34.6% indicated that they used other means.

3.0 LIMITATION AND RECOMMENDATION

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especially for the microblogging platform. This situation happened because the size of the files is big and the process to share with the rest of the teams is a bit slow.

As a result, some photographers used their smartphones to capture the moments during the conferences. The team decided to create several digital storages using Google Drive to allow the photographer to upload directly via their smartphone. To solve these fences, it is recommended to identify the suitable devices that can be used according to the social media platform. The team still can use DSLR if there is no time frame guided to post in the social media platform/content.

Additionally, during IFLA WLIC 2018, the metadata used to record the moment captured is by the session, venue/rooms, date and time. There is not standard metadata provided to record the speaker's name, presentation, and topic, question and answer session and many more. There is a limitation of the information provided in each fresh content provided by the team before publishing it. Another challenge for IFLA WLIC 2018 Social Media Team is the number of team members.

The venue for IFLA WLIC 2018 was at the Kuala Lumpur Convention Center. The place is vast and there are numerous parallel sessions that the team needs to cover. Known as the biggest assembly of the professional librarian in the world, the number of members in the social media team should equal the ratio of the event's size. Besides the number of team members, scheduling is also one of the biggest challenges for the Social Media Team. Due to the limited number of team members, the schedule of the IFLA WLIC Social Media Team is precise compact. Additionally, some of the team members are not familiar with the venue and have limited experience working on such a big scale of conference. This condition will affect the smoothness of the schedule given.

4.0 CONCLUSION

There are always new things to discover and learn during IFLA WLIC 2018. The conference itself is the biggest professional librarian conference ever held in Malaysia. The participants of IFLA WLIC 2018 are the highest participants recorded during that time. The venue of the conference is also taking place at the prestigious convention hall in Kuala Lumpur. The conference itself gives a strong image of the professional librarian among other professions.

The event promotes the profession and channeling the proper branding of a career as a professional librarian. Therefore, there is no doubt that as a volunteer for IFLA WLIC 2018 Social Media Team give the team members valuable experience. As a volunteer, the conference gives us a clear picture of how to conduct an international conference in the future. Besides expended networking, the conference also gives opportunities to the team members to work with IFLA members from around the world. In conclusion, IFLA WLIC 2018 gives a positive impact on the professional librarian in Malaysia, especially among the volunteers.

ACKNOWLEDGEMENTS

The success and outcome of this papers as we believe IFLA WLIC Kuala Lumpur had given us sweet and precious moments, knowledge and networking with the librarian from many countries and we extremely fortunate to have got this all along with the IFLA WLIC 2018 completion and sharing of our volunteer experiences. Whatever we have done is only due to such good support systems and assistance and we would not forget to thank all of our team members.

We are also extremely grateful to Mr Azahar Mohd Noor and to all Malaysia National Committee (IFLA WLIC KL 2018) for providing such a proper systematic training, support and guidance. Last but not least, we would like to express our gratitude to our family, friends and Social Media Team Members for support and willingness to spend some time with us.

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A BRIGHT FUTURE FOR THE LIBRARY AND LIBRARY PROFESSIONAL

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ABSTRACT:

The purpose of this paper is to explore the future vision of library and librarians in the new technology demand referring new user needs, new skills for staff and services offered. The literature reveals that transformation of new technologies giving an implication towards library staff, library services and future user demands. It also shows that communities are still relying on libraries for a variety of services and activities. Hence, the needs for librarians to manage libraries and help users to search information are still relevant. The deliberations in this paper are surrounded by conceptualization of what the library products, services and librarians' roles will be in future libraries. Further studies are needed to investigate the opportunities and possibility for professional librarians and library to enhance their roles facing new era IR 4.0.

Keywords: *Digital Library, Embedded Librarian, Digital Marketing, Digital Resources, Collaboration*

1.0 INTRODUCTION

Modern and advanced technology greatly influences the dependence of users on libraries and librarians where users can easily get the information via online technology such as internet, Google, Yahoo etc. However, libraries should find ways to maintain their role as an information provider and reference services. There is research conducted to investigate the library and librarian's role in future. Yaman and Kultuca (2012) found that it is necessary for universities to adopt the concept of e-library and to take electronic librarianship into consideration while restructuring the services provided by universities via their libraries.

The invention of information technology (IT) and its integration with communication technologies subsequently led to information and communication technologies (ICTs) which have had a significant influence on the evolution of the digital world of modern libraries.

The introduction of digital libraries is a wise move to strengthen the existence of libraries in line with the 4.0 Industrial Revolution. Industry 4.0 stands for the fourth

industrial revolution defined as a new level of organization and control over the entire value chain of products. It is aimed at the increasingly requirements of individual customers (Vaidya et al., 2018). Hussain (2020), mentioned that the Fourth Industrial revolution changing how we live, work and communicate, for examples self-driving cars, online shopping, drone delivery services etc. Libraries and Librarians should also abreast itself with the latest technologies to provide optimal services in minimum time in data tsunami to survive.

Cherinet (2018) has revealed that some of the roles and skills needed by librarians are evolutionary, while others are transformative, but the overarching future role of librarians is to turn the knowledge revolution into community (to create an educated society) by re-socializing and shaping young generations. The outcome also suggested that the synergy of passion, experience, expertise and cultural intelligence has brought together librarians who match the future environment of the library.

2.0 LITERATURE REVIEW

Referring to Cornell University Library (2020), libraries are not a place to read books and journals but it also houses advanced electronic resources, including the Internet, digital library collections, remote access to a wide range of technology and instruction to support the teaching, learning and research activities. Most libraries offer services that focused on customer services (connecting users to the information they need), technical services (ordering, cataloging, and preparing materials), computers' services (maintain library databases, software programming, web page design) and administrative services (manage the library and services, negotiate contracts with vendors, supervise library employees, prepare budgets)

According to Meriam-Webster (2020) librarian is a specialist in the care or management of a library. A librarian is a professional trained in the field of information science. Normally, librarians work at a school, public library, university, colleges or even a government institution. Librarian serves and helps users that need the informational resources and services and at the same time, managing and organizing library resources. Librarians also responsible for a variety format of information, from the classic management of books and periodicals to more modern responsibilities involving audio and video recordings, as well as digital resources.

Digital libraries are organizations that provide the resources, including the specialized staff, to select, structure, offer intellectual access to, interpret, distribute, preserve the integrity of, and ensure the persistence over time of collections of digital works so that they are readily and economically available for use by a defined community or set of communities (Digital Library Federation, 1998).

Singh (2012) described digital library is a space which collection are stored in digital formats (as opposed to print, microform, or other media) and accessible by computers where digital content may be stored locally, or accessed remotely via computer networks. Ilahi et al. (2019) described the digital library is an information technology that is designed as a digital knowledge resources, or are often mentioned a medium that stores data on a large scale and is collaborated with the information management devices capable of displaying the data or information required by the user.

Therefore, digital libraries need to maintain, store and preserve in ways not envisioned in traditional library set-up (Baker and Evans, 2013). Digital library elements may consist the conversion of existing services into digital form or the creation of new services, for example online delivery, portals, personalized services, online teaching

modules, online reference, digitized collections or electronic publishing (Poll, 2005, cited in Baker and Evans, 2013).

According to Nagarkar and Murari (2010), embedded librarians are assigned to teach the user of research skills and wherever instruction is needed. There are three common categories of users which are in university, users are in the classroom or online classroom, meanwhile in business they are in the research lab or office and in hospitals, they are with doctors and nurses.

As mentioned by Cox (2020) librarians can help faculty members create course content, co-teach, provide research consultations, hold virtual office hours and assist in the identification and linking of course content. This skill set will help the librarians to work closely with faculty and at the same time build strong collaboration. In addition, it will help promote the library services and strengthen its visibility while users gain information literacy skill.

Bell and Shank (2004) defined the 'blended librarian' as an academic librarian who combines the traditional skill set of librarianship with the knowledge technologist's hardware/software skills, and the instructional or educational designer's ability to apply technology appropriately within the teaching-learning process.

3.0 METHODOLOGY

This section justifies the method applied in producing the paper. This paper uses conceptual paper so that literature review technique is chosen. Applying literature review technique, this paper retrieves several authentic databases subscribed by UiTM namely Web of Science, Emerald, Science Direct, Ebsco, Proquest and Google Scholar. The keyword for search were "digital library", "library future", embedded librarian", "digital marketing" and etc. The search using that keyword returns 150 related articles, in total. However, about 32 articles were used. Those papers offer the theme/subject/idea related to and conforms to ideas presented in this paper.

4.0 FINDINGS AND DISCUSSION

Embedded Librarianship

In general, library plays an important role to support community in teaching, learning and research activities. Without library as an information center, it's hard for the community to search information and resources that are steadily valid and relevant. Nowadays, most libraries especially academic libraries offer online services to meet their users' demands.

As mentioned by Mwaniki (2017) to cater to technological advances, librarians need to take a critical check out of the conventional library services and what they entail, then analyses the digital library and therefore the modifications or enhancements that are developed and ultimately, project what's in situ for the longer-term library system.

O'Connor (2013) mentioned that leadership is always important but it is essential times of rapid and even fundamental to change. They are the people who will help the library achieve its purpose; but they can also be the force resisting change with potentially fragmentation of clear directions. So, it is important to engage our staff in why change is important, to embed the staff in the process of change, to openly and transparently infuse the process with their own ideas. Staff is invariably responsive to this kind of inclusion. The library organisation for the longer term requires not only professional librarian expertise

but professional expertise from other disciplines. These disciplines include, database managers, web designers, graphic artists and marketing professionals.

Farooq et al. (2016) in their research found that there is a significant gap between academic librarians' expectations of their current professional and personal competencies compared to required skills where they are not satisfied with their present level of skills. The competencies include managing information resources, personal competencies, managing information organizations, applying tools and technologies and managing information services in their routine as an academic librarian. Withal, Pakistan's academic librarians are aware of the need to transform in line with digital technology and take the opportunity to improve their potential and credibility as well it's useful for the universities management in planning the requirement, management and training of their librarians on the basis of required skills.

Previous study of Miller et al. (2020) have identified that reflective practice is a technique promoted as a strategy to enhance professional performance and to develop expertise. Intentional reflection on work situations can lead to improved understanding of a specific situation, identify strategies for similar situations in the future, and uncover assumptions that hinder service to patrons. They also introduce the use of intentional reflection at work: what it is, how it helps, and how it can be applied in librarianship. The reflective practice comes with variety of formats that can be used with a model, combination of models, or no model depending on organization requirement.

Library Science professionals ultimately have to upgrade the skill and knowledge in order to deal with technical change user demands. In order to achieve this, the existing curriculum of library science needs to be modified with the introduction of new subjects such as business and data analytics, psychology and entrepreneurship, aside from domain knowledge and soft skills. There is also a need for an industry strategic partner to collaborate in hands-on research and learning.

There is no denying that academic libraries have undergone many changes due to the increasing use of digital information as well as changes in user demands. To extent, most of users relying on Google, Google Scholar and other search engines on the Internet when they search for information rather than refer to library resources or reference librarians and this number increasingly decreased. This situation drives Bandyopadhyay and Boyd-Byrnes (2016) investigates the continuing need for mediated reference services in the technology-driven environment in academic libraries. Mediated reference services are required to succeed in bent remotely located users, distance learners and library-shy population where academic libraries are providing e-mail reference service and VRs using chat, IMS, texting, video conferencing software and social networking sites to get connected with the users.

Digital Library

Empowerment of digital libraries is also important in order to sustain the library existence. In line with the government's aim to make the country a hub for world education, libraries need to transform library services through increased efficiency and effectiveness of integrated services to the people (Malaysia Education Blueprint 2015-2025). Focus on improving digital implementation, offering more innovative services and expanding services that are readily available to the public.

For example, PNM Strategic Planning 2019-2023 also highlighted that strengthen of digital library as one of their core strategic planning. PNM's intention is to transform library services through increasing the efficiency and effectiveness of integrated services to the people. Therefore, the focus is on strengthening the implementation of digital libraries, providing more innovative services and expanding services that are easily accessible to the people. This strategy can be accomplished by enhancing the national information hub, promoting the country's digital content and boosting the National Depository System (SDK) as the National Clearing House.

Ilahi, R. et al. (2019) in their paper found that the implementation of the Digital Library is very helpful education: to get information quickly and dynamically, students can learn and create a digital library, assist in the process of learned teaching, and the university can help in getting catalogues, references and information about research. Apart from that, the implementation of the Digital Library vastly benefits the public in access information more quickly, to retain the cultural and historical relics that can be referred and used in the future while the company can create a library and provides information on its products.

Generally, in the virtual space, libraries mostly provide e-books, audiobooks, podcasts, online courses and databases, as well as online community space through social media platforms. The New York Public Library has now revealed that it would supply digital video rentals, following the Boston, Los Angeles, and San Francisco libraries.

Yalman and Kutluca (2012) stated that providing sources of information is more important than libraries physical. However, considering the increasing capacities of universities, the difficulties that libraries face with are rising day by day. This situation is a sign that universities needs to consider by adopting the concept of e-library, electronic librarianship while restricting the resources and services provided by universities via their libraries. Meaning that, there are hopes for libraries to stay relevant in the future by improving and enhancing the library resources and services. E-library is one of solution that can help the library maintain its existence and to make it successful, support and cooperation from top management are needed. The library must determine of e-library interface features, differences, ease of use, comprehensibility for users and therefore the advantages and drawbacks of the system within the processes of e-library designing. Hopefully, with the implementation of e-library, it will able to improve the quality of education and increase the use of e-library among the students.

According to Mikkelsen and McMunn-letangco (2015), the digital library must work collaboratively with faculty staff and pupils to support scholarly publishing and open access repositories for their outcomes. Furthermore, future libraries shall encrypt anti-plagiarism software to monitor the academic research of their students to avoid any plagiarism or replication of research work. The digital library must be configured with mobile websites where the library audience could reach the online public access catalogue via device-optimized websites (such as instant messenger to library members and blogs).

Collaboration

Library itself, have a potential to entrust its roles and visibility within the community. However, to make it real the library should actively engage with another stakeholder and the user. For example, Cornell University Library aggressively collaborates with faculty, publishers, artistic designers, students, staff, companies, and others in creating these digital projects. In addition, Cornell University Library also develops digital projects to enhance its resources and services and hires several people to organize and serve the digital collection. One of the digital projects that the library employs people is the Kinematic Models for Design Digital Library (K-MODDL). K-MODDL is a platform for learning and teaching the principles of kinematics. This model specifically designed includes moving mechanical models. In addition, this project is supported by the National Science Foundation, Cornell University Library and listed in the National Science Digital Library (Cornell University Library, 2020).

Another project that library can collaborate is partnered with Google Inc. namely the Library Project. The Library Project allows users to flick through many books published in several different languages on Google, including books that are rare, out of print, or usually unavailable outside of the library system. For example, University of California Library carried a project called Mass Digitization of UC Library Collections in collaboration with Library Project founded by Google Inc. Since 2005, UC libraries have digitized numerous of books through participation in mass digitization projects with Google and Internet Archive. As of early 2020, nine of ten UC campuses and both Regional Library Facilities have participated in these system-wide mass digitization efforts (University of California Library, 2020).

Digital Marketing and Communication

Effective marketing in promoting library resources, services and facilities need to be considered as the physical libraries are starting to fade and high competition between e-libraries. Library professionals must have some marketing skills to help to tell people about your library. Marketing will also help to improve the Library's performance, achieve strategic priorities and deliver against targets.

Research shows relationship marketing offers specific benefits to libraries and might be applied to particular effect in marketing digital library services. Relationship marketing is broadly about fostering good relationships between staff and existing customers and maintaining those relationships will retain customer loyalty. (Henderson, 2005). However, good in customer service is at the core of profession meanwhile relationship marketing is an option when considering marketing digital services, thus use technology to reach and communicate more easily with customers.

The librarian needs to decide what exactly type of digital service is going to promote and which target user. For example, Library of Congress establishes American Memory and markets it to focus target users such as congress, academicians, researchers, teachers, students and public. American Memory is a gateway to rich primary source concerning to the history and culture of the United States. The site offers over 7 million digital items from over 100 historical collections.

Managing Digital Resources

Although research data management activities are plentiful but inadequacy of research data-management policies, lack of incentive, lack of skills and unavailability of data infrastructure will become constraints to manage all the data. This situation shows that library has a potential to provide a holistic data research management system for collecting

data. This can be achieved by sending librarian for a structured training such as data analysis, IT and software technology in order to improve and enhance their skill to cater the opportunity.

In the digital era, library professionals must be able to manage digital resources, such as digital copies of journals, ebook, audio book, rare, special and fragile materials. Librarians must learn how to disseminate, filter and organize digital information according to their relevance, value and formats. Before deciding to initiate such a digitization project, need to considered following issues such as the selection criteria for digitization of rare and fragile materials, appropriate digitization methods, conservation issues which must be addressed before digitization can take place and community-accepted 'good practice' for the digitization (Hughes, 2004).

Digitization and managing rare and fragile materials are challenges and expensive as we need to handling the materials in structured way without harming it. Primary resources materials in museums, archives and libraries consist of variety of rare and fragile format, many of which will present special challenges for digitization. Manuscripts of all periods and languages are represented and a variety of formats, including paper, parchment, birch bark, papyrus, lead tablets, wood, stone, aging newspapers or palm-leaf manuscript, etc are too fragile to be consulted (Hazen et al., 1998; Hughes, 2004). Digitization equipment and practices will have to be customized to deal with a range of specialized formats and unique materials that may also need special attention or conservation treatment (Hughes, 2004).

Knowledge of Research

Chawinga and Zinn (2020) in their study mentioned that researchers are regularly engaged in research operations, producing vast volume of research results. While researchers are eager to share their results, only a few follows through. They also described that data preservation is low since the university uses high-risk data storage such as personal computers, flash discs, emails and external hard drives. Researchers and librarians were lacking core research data-management capabilities due to lack of structured and information training opportunities.

Savedge (2017) described that the modern library is not made obsolete in a digital era but it becomes a new point of tune. The author added that Americans need access to free content from the internet as well as they do from books, and the library is there to satisfy the need and help teach us how to get it. Maybe that's why libraries are the only thing millennial doesn't wipe out.

Chawinga and Zinn (2020) said that many research stakeholders have joined force to establish framework for preserving it, given that research data progressively hailed as crucial raw material for current and future science discoveries. Yet, despite producing rich research data, Africa is lagging behind in the management of research data, potentially losing much of this valuable data. Hence, this study was performed at a Malawian public university to examine research data management activities in order to propose effective data management strategies.

National Library of Malaysia (PNM) also designed a strategic plan to empower the library research activity and development in order to support the process of new knowledge creation for academic and commercial use. This can be achieved by enhancing the study of librarianship, expanding national and international collaboration, strengthen the

transformation analysis and preparing for the new knowledge creation and empowerment of library infrastructure development in Malaysia (Pelan Strategik PNM 2019-2023)

Creating and Managing Space

Providing conducive and comfortable yet interactive spaces is also important if want to stay relevant. The spaces not only for keeping the books but also provide area for discussions, reading corner plus area to serve therapy for elders and meditation for all including children interest (Mishra, 2019).

Online teaching and learning will take place in near future where variety of media platforms such as Google classroom, Zoom, Webex, Google Meet are mostly considered medium to perform the teaching and learning processes. To extent, libraries are perfectly positioned to assist faculty in the development of online courses. Library instructional technology game is strong, with comprehensive knowledge of tutorial and instructional video production, course management systems, OER and the like (Cox, 2020).

Conclusions

According to Mishra (2019), libraries have been known as a place for preserving the books, information provider and reading space for the users. Information overload rapidly changing the way of people search for information, but then still we are not sure whether the information that we search for is authentic or not and helps from the librarians are needed. This situation shows that libraries and librarians' role is still there even though users can search and access the information in digital form easily. Apart from that, libraries are encouraged to invest to provide more resources, services and facilities that meet the users' need in line with industrial revolution (IR) technology development.

The librarians must be equipped with advanced computer skills by sending them to professional trainings. For instance, providing job training, participate in workshops, seminars and conferences are a must to be considered. The academic libraries may take advantages on emerging technologies by endowing themselves with high-level knowledge, analysis skills and digital literacy. Librarians need skills to analyze these subscription models to ensure the maximum usage of the resources, be able to truly comprehend the database and completely understand licensing models. This is to ensure that the future librarians are abreast with ample knowledge of advancing tech to fulfil the new user needs (Mwaniki, 2017).

Mwaniki, P. (2017) said that to cater to technological advances, librarians ought to take a critical look at the conventional library services and what they are encompassed, then analyze the digital library and the modifications or enhancements that have been developed and ultimately project what is in place for the future library system. These had given rise to new roles for librarians in academic libraries including coordinating and promoting access to electronic information resources and assisting further interactive customer services as conducting intensive literacy skills to their users in particular on access and retrieval of e-resources.

As educators, they may broaden their expert knowledge on educating their clients using an online platform, access e-journals and navigate them by web-based instructions and course materials. Digital libraries should strive to meet the needs of users per technological developments by facilitating users' places that spur participatory learning

and enhance the efficacy of the information from a plethora of sources, to connect and acquire knowledge with each other.

Todorinova (2018) in her research found that profession interest within undergraduate and first year librarian in United States is limited about what the undergraduate librarian does, how the work is structured on a daily, and the way its goals are negotiated and accessed. To extent, undergraduate librarians also facing a number of issues, as well as navigating vaguely defined roles, building their professional skills, and promoting their role within the library and to the university. Therefore, result also reveals some of the reasons why undergraduate and first year librarians were attracted to the career. They enjoy collaborating with undergraduates, interesting position/provides variety, the position's knowledge literacy emphasis, empathizes with experience at the undergraduate level, position encourages outlet for creativity and prior interest or background of the philosophy of education and teaching.

There are number of difficulties and challenges that libraries and future librarians encountered involving budgetary resources, time and emotions overwhelmed by the number of tasks involved in education and outreach of undergraduates which is often required without the support of a department or a team. The respondents articulated a desire for further cooperation at the library with their colleagues and a lack of faculty support was perceived. A few respondents claimed that they felt stifled in a creative way while often portrayed their role as having limited advancement potential. Somehow, undergraduate librarians have the daunting task of navigating the priorities and obligations of their role because they are not properly and clearly formulated (Todorinova (2018).

In a nutshell, further studies are needed to investigate the opportunities and possibility for professional librarians and library to enhance their roles facing new era IR 4.0.

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FROM DAMANSARA TO GOMBAK: EXPERIENCE OF DAR AL-HIKMAH LIBRARY MOVING A LAW LIBRARY

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ABSTRACT

This paper is written to illustrate the experience of Dar al-Hikmah library relocating a law library to a law faculty's resource centre. The law library in this article refers to Mohamed Ismail & Co. library, Damansara, Kuala Lumpur, while the law faculty's resource centre in this article refers to Razali Nawawi Resource Centre (RNRC), Ahmad Ibrahim Kulliyah of Laws (AIKOL), Gombak, Selangor. This paper is written based on the author's observation, experience and review of related literature, and shares the author's approach in moving the law library, the inventory process, the moving process and the challenges during the moving process. Generally, the approach shared in this paper can be applied to any library collection, especially a law library. It is hoped that the ideas and experience serve as a contribution to law libraries in other higher learning institutions in Malaysia or any other types of special libraries worldwide.

Keywords: Law library; Library relocation; Collection management; Law resources; Library space management

4.0 INTRODUCTION

Dar al-Hikmah Library, which has served the kulliyahs (faculties) in IIUM, has appointed a liaison librarian for every kulliyah to act as an intermediary between a kulliyah and the library. One of the kulliyahs in IIUM is Ahmad Ibrahim Kulliyah of Laws (AIKOL). The author is the law librarian serving for AIKOL, and thus, responsible in coordinating the moving process of the law resources from the law library in Damansara to the resource centre of AIKOL in Gombak.

The law library in this context is Mohamed Ismail & Co. library (M.I & Co. library). M.I. Co. library is a legal firm located at 51, 2nd Floor, Plaza Damansara, Jalan Medan Setia 1, Bukit Damansara, 50490, Kuala Lumpur, Wilayah Persekutuan. The legal firm was owned by Allahyarham Dato' Haji Mohamed Ismail bin Mohamed Shariff (14.10.1944 – 5.11.2016). His family member decided to donate the law library collections, furniture and shelves to RNRC, AIKOL, Gombak. The law library has four (4) core collections, such as law books, law reports, law journals and statutes.

Further, the law resource centre involved in this context is Razali Nawawi Resource Centre (RNRC), AIKOL. The existing collection in RNRC is 5000 items. RNRC is administered by AIKOL administration office. AIKOL instructed the law librarian to

advise and coordinate the moving process from M.I. & Co. library, Damansara to RNRC, AIKOL, Gombak. The law librarian was appointed as the move coordinator for this project.

This article shares the author's approach to move the law library to the resource centre in the law faculty by discussing the following subtopics:

1. The law librarian as the move coordinator
2. The inventory process at M.I. Co. library
3. The moving process from Damansara to Gombak
4. The challenges faced during the moving process

2.0 LAW LIBRARIAN AS THE MOVE COORDINATOR

The law librarian as the move coordinator prepared a layout plan for RNRC, prepared a Gantt chart, coordinated with the mover team, understood the AIKOL administration procedure and showed sensitivity towards the donor - the family members of Allahyarham Dato' Haji Mohamed Ismail bin Mohamed Shariff by respecting their requests and feelings.

Before preparing for the layout plan, the law librarian considered the followings:

1. Existing collections and shelves
2. New incoming collections and shelves
3. Space for reading areas for the placement of tables and chairs
4. User space, namely discussion rooms and carrels (Roberts, 2015)
5. Space for comfortable seating (Roberts, 2015)

The layout plan, shown in Appendix 1, was proposed to AIKOL administration office. Besides preparing the layout plan, the law librarian also prepared a Gantt chart and proposed the activities to the AIKOL administration office. The activities listed in the Gantt chart were as follows:

1. Create an inventory
2. Categorise the law resources using coloured stickers
3. Carry out fumigation process
4. Transfer the law resources into boxes
5. Disassemble metal and wood shelves at M.I & Co. library, Damansara
6. Transport the boxes from Damansara to Gombak
7. Assemble metal and wood shelves at RNRC, AIKOL, Gombak
8. Shelve the law resources according to categories
9. Label the shelves according to categories

All of the tasks involved in preparing the layout plan and the Gantt chart were mentioned by Fortriede, 2010: "a move coordinator should be able to direct the move; coordinates other members of the moving team; work with the collection layout, the move plan, timetable and the process of the move; work from floor plans and extrapolate from them to the reality of a building that may not yet be built" (Fortriede, 2010).

The moving process was time-consuming. The move coordinator had to devote a significant amount of time for over many months in the planning process, which involved various tasks, such as checking and rechecking; making and answering telephone calls; designing versions of the floor plan; developing timetable or work schedule; ensuring the counts of shelving; attending meetings; having walk-throughs and just plain thinking, all of which are required to complete even a moderate move (Fortriede, 2010). Fortriede (2010) added that the move coordinator must be able to be relieved from or to delegate to subordinates enough regular responsibilities to free up the time required

3.0 INVENTORY PROCESS AT MOHAMED ISMAIL & CO. LIBRARY

A law library is a special library that contains law resources. The core collections are:

1. Law book
2. Law report
3. Law journal
4. Statute

The objective of the inventory process at M.I. Co. library was to count the number of the four (4) core collections. Steel (1994) described the inventory process as essential to the moving process because “inventory is a “reality check” to account for all library resources.”

During the inventory process, the law librarian provided inventory forms for law book, law report, law journal and statute, as shown in Figure 1:-

Dar al-Hikmah Library Project: Moving Mohamed Ismail & Co. Law Library Inventory: Law book			
No.	Title	Volume No.	Year

Dar al-Hikmah Library Project: Moving Mohamed Ismail & Co. Law Library Inventory: Law report			
No.	Title	Volume No.	Year

Dar al-Hikmah Library Project: Moving Mohamed Ismail & Co. Law Library Inventory: Law journal			
No.	Title	Volume No.	Year

Dar al-Hikmah Library Project: Moving Mohamed Ismail & Co. Law Library Inventory: Statute			
No.	Title	Volume No.	Year

Figure 1: Inventory forms for law resources

Every item, including volumes, was recorded by using the forms. The records in the inventory forms reflected the number of items for law books, law report, law journal and

statute. The inventory process also inventoried furniture and shelves to be transferred to the new location.

The information about the number of items, furniture and shelves to be transferred is important to the move coordinator so that the move coordinator can do the followings: -

1. Inform the faculty administrator
2. Inform the mover
3. Inform the fumigator
4. Plan the resource centre layout to accommodate the new collections
5. Plan the work schedule in the Gantt chart
6. Separate the non-related collections, such as law firm files, and etc.

During the inventory process, the Dar al-Hikmah library team managed the law resources, categorised them into different groups, and marked them by using coloured stickers. During the process, coloured stickers were used to label different items, such as the followings:

- | | | |
|----------------|---|--------|
| 1. Law book | - | Orange |
| 2. Law report | - | Blue |
| 3. Law journal | - | Yellow |
| 4. Statute | - | Green |

Based on the inventory report, 7,344 items were listed to be transferred to RNRC, AIKOL. Below is the summary of the items, furniture and shelves to be transferred to the new location:

- | | | |
|------------------|---|-------|
| 1. Law books | - | 1,350 |
| 2. Law reports | - | 4,784 |
| 3. Law journals | - | 351 |
| 4. Statutes | - | 859 |
| 5. Wood shelve | - | 15 |
| 6. Metal shelve | - | 5 |
| 7. Counter | - | 1 |
| 8. Working table | - | 1 |

This inventory practice was supported by Fortriede (2010) who mentioned: “Include books, other library materials, such as furniture, equipment and anything else you expect to be moved”. Similarly, Steel (1994) stated that: “The current facility and its contents must be reviewed in preparation for the move. Three distinct categories of items need to be prepared are the collection, the furniture and the equipment.”

4.0 MOVING PROCESS FROM DAMANSARA TO GOMBAK

After the inventory report was carried out, and the law resources were marked by using coloured stickers, the law resources were organised and filled into boxes. As the moving coordinator, the law librarian had briefed the mover company earlier about the moving plan. As the law librarian knew that the mover company did not have any working experience in librarianship field, the law librarian used the moving plan as the only way to communicate with the mover personnel. The law librarian also prepared labels for different types of law resources according to different colours, as shown in the list below and presented in Figure 2, to streamline the process of transferring the law resources from the previous library shelves into boxes:

1. Law book - Orange
2. Law report - Blue
3. Law journal - Yellow
4. Statute - Green

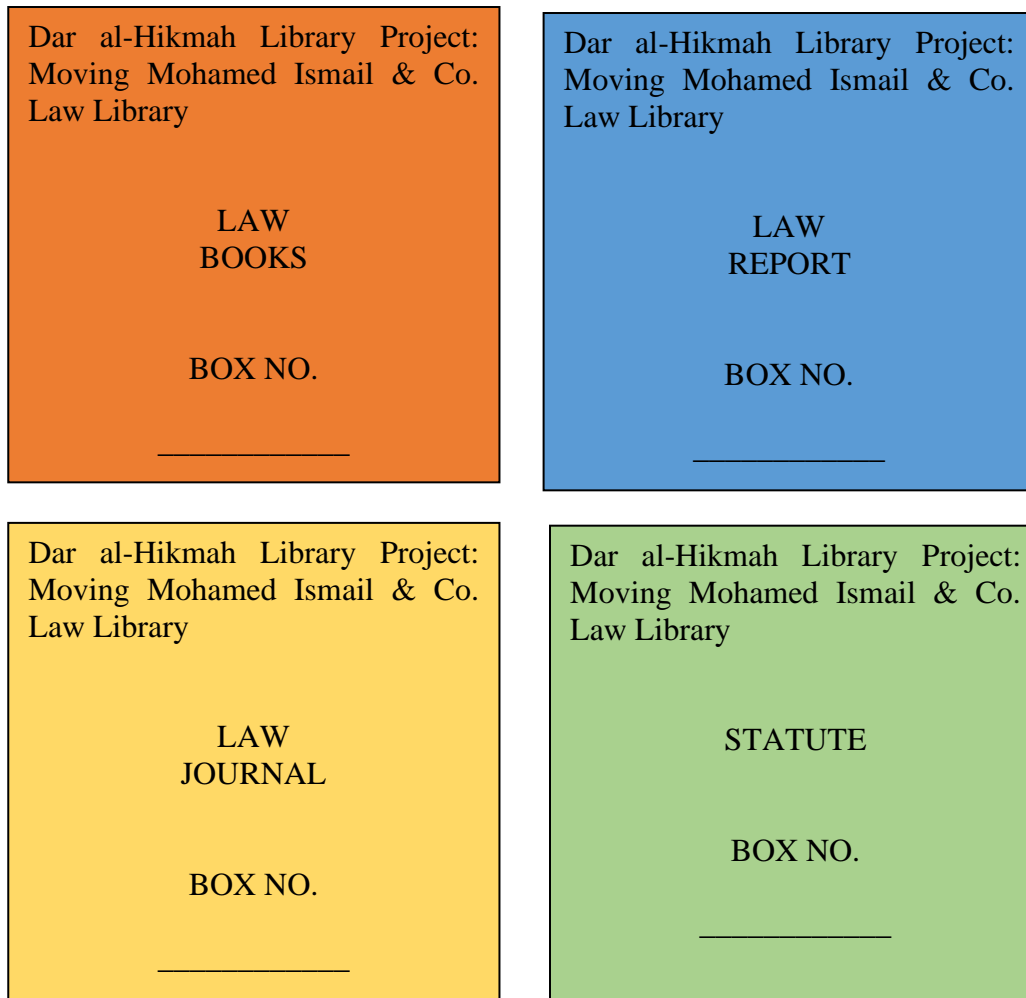


Figure 2: Labels for the different types of law resources according to different colours

Then, the mover transferred the law resources into boxes according to the coloured stickers marked on the law resources as labels, pasted the labels according to colours, on the boxes and numbered the boxes accordingly, as shown in Picture 1:-



Picture 1: Law resources were placed in boxes according to labels.

The law librarian and Dar al-Hikmah library team members had to monitor the activity of the mover personnel at M.I. Co. library. The law librarian also reminded the mover personnel that it was necessary to retain the books according to the colour codes all the times. Concerning this, Fortriede (2010) emphasised “the importance of keeping the books in order during the moving process in his briefing with his team. He informed his team of the followings:

1. The books are in order on the shelves.
2. We take them off the shelves, in order.
3. We put them in the box, in order.
4. We number the box, in order.
5. We put the box on the truck, in order.
6. We take the box off the truck, in order.
7. We take books off the boxes, in order.
8. We put the books on the shelves, in order.”

The mover personnel built temporary wood conveyors from the second floor to the ground floor to transfer and load the resources onto the truck, as shown in Picture 2. The filled-up boxes were labelled according to colours, numbered, slid from the second floor to the ground floor and carried onto the truck. The packing and loading of the boxes involved three teams, namely:

1. Team 1: This team transferred the books from the shelves into the boxes which were labelled and organised according to the sequence of numbers.
2. Team 2: This team slid the boxes along the wood conveyors according to the coloured labels and the sequence of numbers.
3. Team 3: This team received and organised the boxes on the truck in the order of the labels and numbers.



Picture 2: The law resources in the boxes were slid according to labels and numbers, in order.

Table 1 presents the types of collections of law resources, number of items and number of boxes that were transferred:

No.	Collection	No. of Items	No. of boxes
1	Law book	1350	52
2	Law report	4784	196
3	Law journal	351	2
4	Statute	859	11
	Total	7344	261

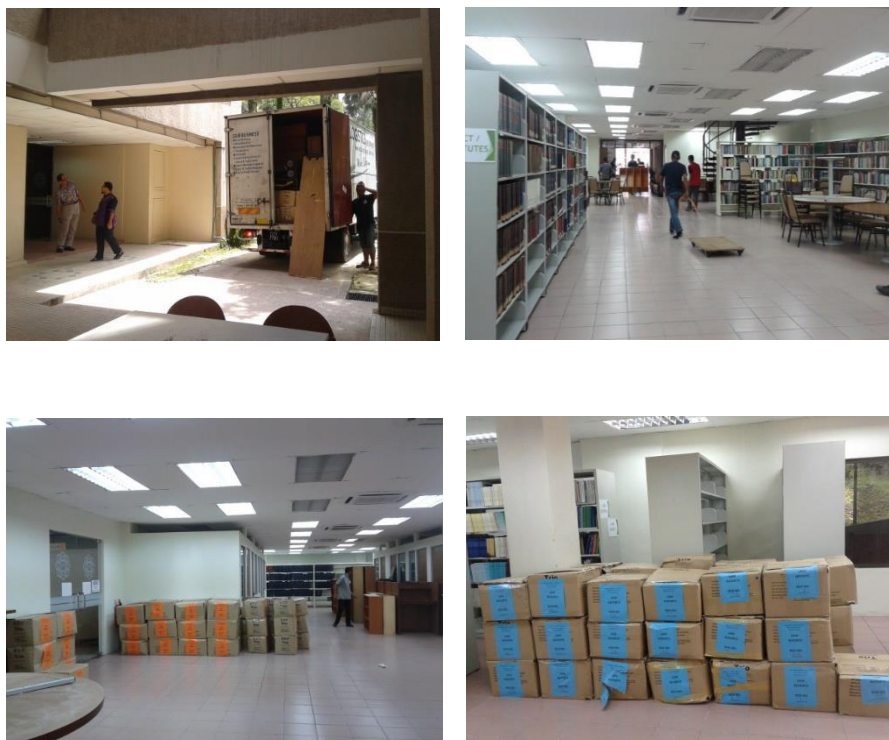
Table 1: Types of collections of law resources, number of items and number of boxes that were transferred

Next, the mover personnel dismantled the shelves at the M.I. Co. library, as shown in Picture 3, and transported the shelves to RNRC, AIKOL.



Picture 3: Shelves were dismantled at M.I Co. library.

At RNRC, AIKOL, the law librarian and the Dar al-Hikmah library team members monitored the activity of the mover personnel who reloaded the boxes and organised the boxes according to the coloured labels, as shown in Picture 4.



Picture 4:- The orange labels were used for boxes containing law books, while the blue labels were used for boxes containing law reports.

The process of packing the resources into boxes, loading the materials onto the truck, transporting them to Gombak, loading them into RNRC, assembling the shelves at RNRC and re-shelving back the resources at RNRC was carried out in four (4) phases within 2 weeks' duration. Picture 5 shows the shelves were being re-assembled at RNRC, AIKOL.



Picture 5: - The shelves were re-assembled at RNRC, AIKOL.

Finally, all shelves at RNRC, AIKOL were labelled according to the law resources, as shown in Picture 6:



Picture 6: Shelves were labelled according to the law resources.

5.0 CHALLENGES DURING THE MOVING PROCESS

5.1 Logistics matters

AIKOL administration designated the law librarian as the coordinator and relied on the law librarian to handle the moving process. Meanwhile, the mover and the fumigation companies were appointed by AIKOL administration based on the information on the numbers of items, furniture and shelves inventoried by the librarian team. A meeting was arranged by AIKOL administration between the law librarian, the mover and the fumigation companies to decide which companies were to be appointed. The law librarian, as the move coordinator, was assigned to conduct the moving plan project briefing.

Before conducting the briefing, the law librarian had to finalise the moving plan, AIKOL administration process, donor sensitivity, and the environment as well as the logistics concern at M.I. Co. library and RNRC, AIKOL, such as:

1. The parking space at M.I. Co. library was limited;
2. The M.I. Co. library was located on the second floor and was accessible only via staircases;
3. A food premise was located on the ground floor in the M.I. Co. library;
4. The collection, furniture and shelves would be transported from Damansara to Gombak;
5. The furniture and shelves at M.I. Co. library would be dismantled;
6. The furniture and shelves at M.I. Co. library would be re-assembled at the RNRC, AIKOL Gombak;
7. The law resources would be re-shelved at RNRC, AIKOL, Gombak;

Then, the law librarian briefed the mover and the fumigator companies about the moving plan. During the briefing session, the law librarian was accompanied by the Dar al-Hikmah library team, AIKOL team and the family members of Allahyarham Dato' Haji Mohamed Ismail bin Mohamed Shariff. The law librarian also introduced the family members to the personnel of the mover and the fumigator companies.

The law librarian also informed the mover and the fumigator companies that the Dar al-Hikmah library team was the sole coordinator of the project. Thus, all quotations had to

be submitted to the AIKOL administration office, who would decide the appointment of the companies.

After the briefing, the mover and the fumigator companies visited the M.I & Co. library to see the collections, furniture and shelves before they prepare the price quote for the moving process and the fumigation exercise to be sent to the AIKOL administration.

During the briefing session, the law librarian paid attention to the issues raised by the mover and the fumigator companies so that the AIKOL administration and the donor could be notified about the concerns.

The fumigator company was concerned about the following matters:

1. Approval from the Local Municipal Council and Ministry of Health Malaysia was required to carry out the fumigation process. The request for approval would be sent by the fumigator company.
2. Fumigation process at premises located in commercial areas, near food premises and surrounded by people, such as M.I. & Co. library and RNRC, AIKOL, do not usually obtain approval from the Local Municipal Council and Ministry of Health Malaysia.
3. The fumigation activity had to be done in an open space away from commercial building and people because the gas used would be highly dangerous to humans.
4. The open space location would be suggested by the fumigator.
5. All items, including collections and furniture, would be placed in containers and transported to the open space where the fumigation activity would be done.
6. The fumigation process would take about 48 hours.

The mover company was concerned about the following matters:

1. The location for the fumigation process had to be in Lembah Klang area.
2. The condition in RNRC, AIKOL might probably be different for the wooden shelves at the M.I. & Co. library to be dismantled and re-assembled.

For administrative purpose, the law librarian updated the AIKOL administration office and the family members of Allahyarham Dato' Haji Mohamed Ismail bin Mohamed Shariff about the concerns that the mover and the fumigator companies were facing.

The decision to appoint the mover and the fumigator companies was decided by the AIKOL administration. Due to the tight budget and time constraint, AIKOL team decided to move the collections, furniture, and shelves without carrying out the fumigation process. Therefore, the law librarian agreed with the decision to skip the fumigation process.

In addition, AIKOL administration also decided to appoint a mover only after setting a date for the moving process with Dar al-Hikmah library team.

6.0 CONCLUSION

The moving process, from packing the law resources at M.I. Co. library, transporting them from Damansara to Gombak, and re-shelving them at RNRC, AIKOL, Gombak, was successfully completed within two (2) weeks. The law librarian, as the move coordinator, had to streamline the moving process by preparing the layout plan and the Gantt chart that contained a moving plan involving the inventory process, moving process and shelving the collection at the new location. The mover personnel, in this context, depended fully on the moving plan because they had never worked in the librarianship field. The Dar al-Hikmah library team had to communicate and monitor the mover activities constantly. The law librarian, as the move coordinator, had to keep updating the stakeholders, namely the AIKOL administration office and the family members of Allahyarham Dato' Haji Mohamed Ismail bin Mohamed Shariff. Generally, the approach shared in this article can be applied to any library collection, especially a law library. It is hoped that the ideas and experience are considered as a contribution to other law libraries in all higher learning institutions in Malaysia, or any other types of special libraries worldwide.

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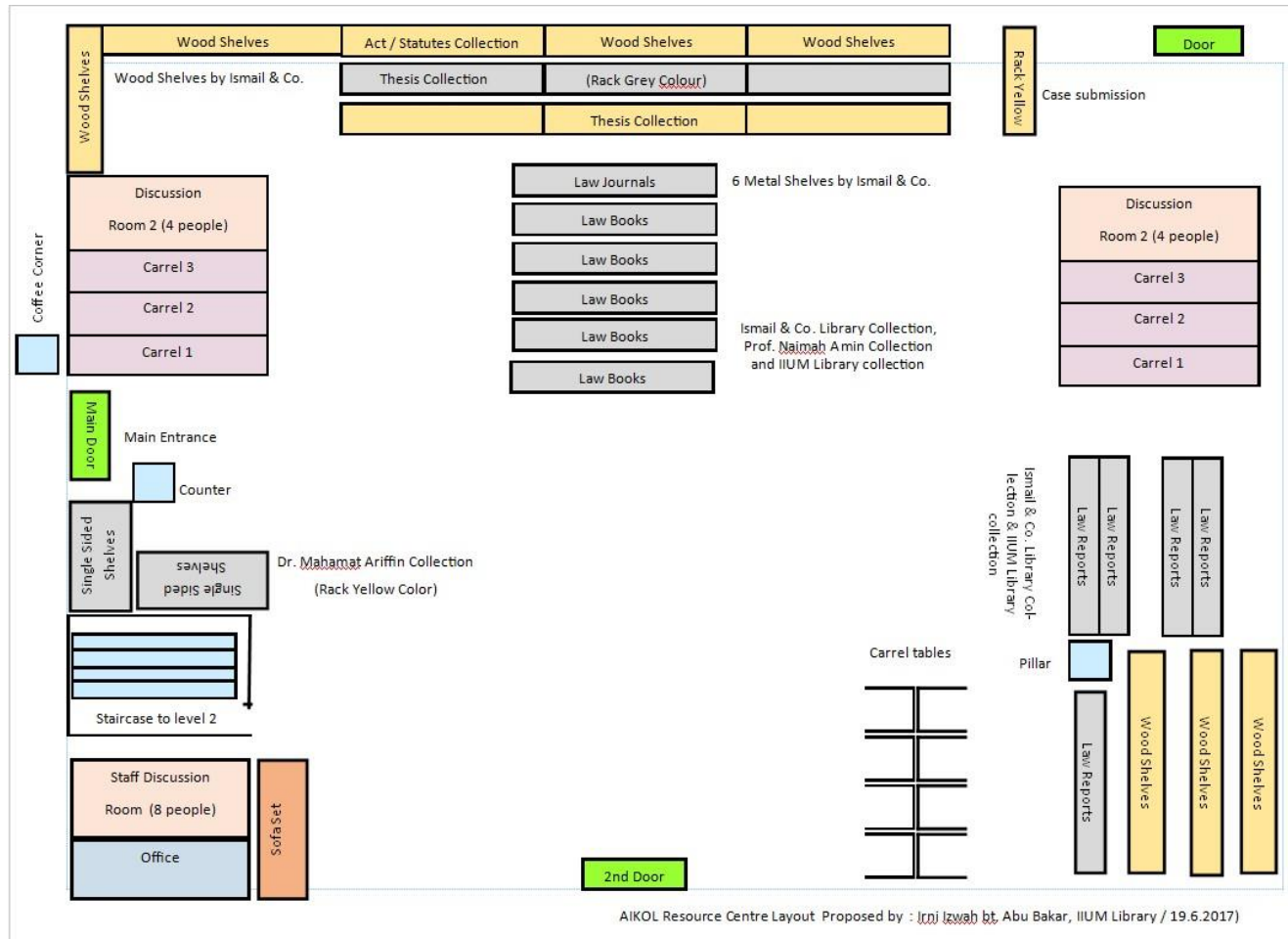
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APPENDIX 1

RAZALI NAWAWI RESOURCE CENTRE, AHMAD IBRAHIM KULLIYAH OF LAWS, AIKOL, GOMBAK PROPOSED PLAN



Poster Presentation 1

DECLINING NUMBER OF BOOKS BORROWING AT AN ACADEMIC LIBRARY IN JOHOR

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ABSTRACT

Libraries, regardless of their types of libraries either academic libraries, special libraries, public libraries and even in school libraries are facing a major challenge in the 21st century: for a number of years there has been a decline in the number of books being borrowed. In the academic libraries, where the library is the heart of the institution, making a clear assumption on the borrowing and loan activities must statistically being proven. This study determines the reasons of the decreasing number of borrowing books among the students; the frequency of students visit and borrow books from the library; the purpose of the students come to the library; and the types of sources that were used. This study also focuses on identifying the reasons why students reluctant to borrow books in an academic library. The significance of the study is to improve borrowing books activity in the library and thus help in promoting new books on shelves; encourage librarians in guiding users to search appropriate books in order to fulfil their needs; help library in making acquisition and circulation decisions based on the current findings and help library management in measuring their Return on Investment (ROI) as library has spent a lot on books purchase. Questionnaires were distributed to 400 random targeted respondents who experience using the library services. The insights of this study could assist the library management in measuring and evaluating their collections and improve their services to the user in future.

Poster Presentation 2

**READ@USM: #readuniusm #jombacausm #usmmembaca #malaysiamembaca
#dekadmembaca**

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ABSTRACT

Perpustakaan Universiti Sains Malaysia (USM) beriltizam untuk meningkatkan kesedaran tentang kepentingan membaca, memupuk minat cintakan ilmu dan meningkatkan tahap pembacaan agar ianya menjadi amalan sepanjang hayat di kalangan mahasiswa dan warga USM. Read@USM telah menyokong inisiatif Read@Uni dengan melaksanakan hasrat kerajaan menjadikan Malaysia sebagai Negara Membaca 2030. Di samping itu ianya dapat melahirkan ekosistem membaca yang sihat dan berterusan di kalangan mahasiswa dan warga kampus sehingga ianya menjadi amalan sepanjang hayat. Read@USM juga dapat menyebar luas peranan dan perkhidmatan Perpustakaan USM di kalangan warga USM dan komuniti.

Poster Presentation 3

SCAVENGER HUNT: LATIHAN KEMAHIRAN LITERASI MAKLUMAT DIKALANGAN PELAJAR INTERIM UITM JOHOR KAMPUS SEGAMAT

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ABSTRACT

Setiap tahun dianggarkan seramai 1,500 orang pelajar baru berdaftar di UiTM Johor Kampus Segamat yang mana mereka ini mempunyai pelbagai tahap kemahiran pencarian maklumat, pengalaman penggunaan perpustakaan, kemahiran menggunakan komputer dan penguasaan Bahasa Inggeris. Bagi memastikan kejayaan akademik dan meningkatkan lagi penguasaan penggunaan perpustakaan dan pengaksesan maklumat dalam pelajaran dan penyelidikan, Perpustakaan Tun Dr Ismail mengambil inisiatif mempromosikan kemudahan, perkhidmatan dan koleksi Perpustakaan menerusi Modul Kemahiran Literasi Maklumat kepada pelajar ini. Modul ini ditambahbaik dengan aktiviti scavenger hunt oleh Unit Perkhidmatan Maklumat dengan kerjasama Unit Pembangunan Koleksi berdasarkan modul yang disediakan oleh Perpustakaan Tun Abdul Razak. Aktiviti scavenger hunt ini dilihat dapat membantu pelajar mengetahui dengan lebih lanjut kemudahan dan koleksi perpustakaan, berinteraksi bersama staf, kerja secara berpasukan dan mempraktikkan kaedah pembelajaran sendiri. Pengetahuan, pemikiran dan pemahaman pelajar yang pada mulanya agak rendah berubah menjadi lebih tinggi selepas perlaksanaan program ini. Pada masa yang sama ia juga menjadi platform bagi Perpustakaan untuk menilai kualiti dan impak kemudahan serta koleksi yang sedia ada. Inisiatif aktiviti scavenger hunt ini diharapkan dapat membantu Perpustakaan di kampus yang mempunyai jumlah pelajar yang besar bagi memastikan modul yang diajar dapat disampaikan secara berkesan seterusnya membantu meningkatkan pencapaian petunjuk prestasi utama dan penambahan statistik perpustakaan.

Poster Presentation 4

IMU CENTRAL DIGITAL REPOSITORY (CDR)

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ABSTRACT

The IMU library plays many roles in supporting and facilitating the research, learning, teaching and administrative activities of IMU. One of the roles that has been overlook for many years is the library being an archive for the intellectual work of IMU. With the intention to reduce certain basic costs to the university, IMU library has internally developed its own Institutional Repository named “Central Digital Repository (CDR)” without any support from external / commercial parties, using the Open Source Repository Software Package named DSpace to house all digitized theses, student project papers such as the Research Project Reports, Elective Reports, Community Project Reports such as the Community and Family Case Study (CFCS) reports, Medical Student’s Portfolios and papers & posters produced by IMU Faculty members be it published or presented at Conferences or Seminars. It has also helped in saving shelve space as the library does not need to buy new shelves. The spaces used to shelve student works are now utilised for sitting spaces. The creation of the CDR has no doubt improved the business process of the IMU Library. Users are able to access the IMU’s Intellectual Property 24/7 from their own location without having to physically come to the library. Most importantly, a big sum of money has been saved if it were to be developed by the commercial vendors in the field.

Poster Presentation 5

THE CHALLENGES OF ESTABLISHING DIGITAL LIBRARY SERVICES IN AN OPEN DISTANCE LEARNING (ODL)

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ABSTRACT:

The Digital Library services has play an important role in establish in an Open Distance Learning (ODL). Digital library has a large number of learning instructional data such as text, video and audio to adjust compatibility to the distance learners. The distance learners can accessible 24/7 to the information and with the same resources allowing to use simultaneously by a number of institution at one-time usage. The Digital Revolution has affected nearly every aspect of library and museum services, from the automation of internal recordkeeping systems to the digitization of physical collections, and from the acquisition of new “born-digital” works of art or library publications to the use of technology to present collections and engage audiences. Distance learners are connected and accessible anywhere as long as an internet connection is available by using the technological devices such tablet, smartphone or personal PC. The above analysis of a definition will be the basis of the next section. If we take as an example the definition: “A digital library is an online system that stores media assets, and provides services for retrieving and presenting this content to humans or other online systems” then, the “digital library” is called the definiendum; Online system is the genus; Stores media assets and provides services are the differentiae. This study provides useful information on Digital Library Services about the challenges and how to help the development of e-learning methods among the ODL learners. Methodology term that researcher using for gathering data analysis and forecast is using the survey technique. A qualitative method will also be conducted via observation and interviews through the participants who are among the ODL learners from the university selected.

Keywords: Digital library, Open Distance Learning (ODL), ICTs, Digital Divide

Poster Presentation 6

AN INNOVATIVE LIBRARY PROGRAMME TO PROMOTE READING CULTURE

Hasniza Amno, Lizawati Muhammadan, Muhamad Amin Azmi, Mohamed Hafiz Mansor, and Bakiah Shaharuddin

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ABSTRACT

The Advanced Medical and Dental Institute (AMDI), Universiti Sains Malaysia, is an academic research institute focusing on three core areas; tertiary clinical services, advanced research and postgraduate academic programmes. AMDI is committed to provide healthcare services for the community, especially at the northern region of Malaysia. AMDI library caters for staff and students of the institute, which is a key service centre supporting the main components of AMDI. Books and Coffee Trolley Round is a weekly voluntary programme which is conducted since May 2019. The main objective is to increase the passion for reading as a means of providing valuable knowledge and skills in the community. Besides, this programme also highlights bibliotherapy; which refers to a method of using reading materials to help people with emotional problems, mental illness, or life changing events in their lives. Books and Coffee Trolley programme started off with a "Jom! Derma Buku" campaign where reading materials were donated by the staff and public. We hope to achieve 2,000 reading materials through private and corporate donations to be distributed for FREE during this weekly programme. Initially, two "Free Books Corner" were set up for the pleasure of staff and students of the institute to enhance a reading culture at our institute. Following an intensive effort of collaboration with book publishers, suppliers and private donations, a sufficient number of reading materials were available in our collection which instigated the "Books and Coffee Trolley Round". During this programme, our volunteers carry a trolley of reading materials along with snacks, tea and coffee. Our volunteers consist of medical specialists, university lecturers, other AMDI/USM staff, cancer survivors, NGO members or the public. A survey was conducted to gauge the response of our clients about the programme. Implementation of this programme has opened for collaboration and linkages within the institute, community, corporate, NGO and individual volunteers to promote reading culture. It has increased our visibility as a healthcare provider as activities were highlighted in our social media. During the rounds, our clients take the opportunity to share their feedback on our services to improve the quality of care that we provide. From a feedback survey among 100 respondents, 63% demonstrated they are "very satisfied" and 35% "satisfied" with this programme. This programme highlights an impactful Library Extension Service that benefits our clients by nurturing reading culture, spirit of goodwill and teamwork. It provides a positive impact to the Institute and materialise the vision and mission of USM.

Keywords: Reading culture, trolley round, AMDI library, Bibliotherapy

Poster Presentation 7

REQUEST BOOK AND ARTICLE SYSTEM (RBAS): TOOLS, TECHNIQUES AND OUTCOMES

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ABSTRACT

Request Book and Article System (RBAS) is a web-based system for online interlibrary book loan and article request. The system was developed in 2019 using a Linux-based/Window server operating system with Apache 2.4 and PHP 7.0/MySQL databases. The new system integrates the interlibrary loan process and document delivery services. The system is currently being used at Advanced Medical and Dental Institute (AMDI), Universiti Sains Malaysia, Kepala Batas, Pulau Pinang which is an advanced academic institute with an interconnected research, and clinical ecosystem. Previously, records of AMDI library request, reports and storage was handled manually and resulted in complex workflows. The internal or external library users use the RBAS via AMDI Library website to request for books or articles from the library. Their request is transmitted through the system and is automatically placed in the queue. RBAS enables users to view request, view document, updating status from within the system and produces comprehensive reports and statistics. For a book request, the user may receive an email providing standard message of their book request status from RBAS. Meanwhile, for article request, the system delivers the document or files automatically to the requestor email account and tracks the supply status. Thus, it helps to improve books and articles request management processes and improves the turnaround times for users. The system also reduces the administrative staff requirements in a library. The feedbacks of the implementation of this new workflows and processes were collected through a customer satisfaction survey. The online system is found to be advantageous due to its simplicity and streamlining interlibrary loan and document delivery workflows. RBAS is a unique in-house system; which is flexible and can be designed to be to fit the organisation's purposes with no extra investment. RBAS copyright registration number is LY202000668.

Keywords: RBAS, Interlibrary loan, Request Article, Document Delivery, Process Improvement

Poster Presentation 8

READING FOR ALL: A STORY FROM CHOW KIT

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ABSTRACT

This paper presents the story of the efforts put by the Al-Bukhari Library Team that was initiated from the International Federal of Library Associations and Institutions (IFLA) 2018 paper. The project that has been done was the “Let’s Read with PAB; with knowledge we lead” project and the objective of the project was to reach out to children at Jalan Chow Kit, Kuala Lumpur and helping them to have a conducive mini library as a place for them to read and learn. A mini library make over was done at Buku Jalanan Chow Kit and Sekolah Bimbingan Jalinan Kasih. These two places were selected because they provide the space for the undocumented or the homeless children to learn despite these children not attending schools. The mini libraries are equipped with books collections, toys, and computers. They serves as an informal classroom where learning activities took place every day. The children learned to read and write plus they learned to appreciate cleanliness, good health, and beauty in a carefully designed and nurturing environment. The writers evaluation is on (1) how this shelter and school operate the places after their library being make over, (2) what the benefits for the kids, volunteers and teachers, (3) what the impact to their places after “Let’s Read with PAB; with knowledge we lead” project being conducted these past two years. This research employ qualitative methods with indepth interviews with volunteers, teachers, and government officers who supervise these places. This research will give benefit for librarian by developing reading modules that is more suitable for homeless kids and for volunteers in developing the library to fulfill the needs of special group like Chow Kit Kids and also give recommendations to the library team in order to sustain the reading program for homeless children by dealing with the providing and improving reading module for them.

Keywords: *homeless, Reading Nation, Reading Campaign, library for all, the role of library*

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