Behavior in the Use of Archival and Information Database: Problems and Needs of Archival and Information Use by Mahasarakham University Personnel, Thailand

Auearee Panpimyai*
Librarian (Senior Professional Level)
Academic Resource Center, Mahasarakham University
E-mail: auearee.p@msu.ac.th
Suntiparp Plienchote**
Computer Technical Officer
Academic Resource Center, Mahasarakham University
E-mail: suntiparp.p@msu.ac.th
Assoc. Prof. Prasart Nuangchalerm***
Department of Curriculum and Instruction, Faculty of Education, Mahasarakham University
E-mail: prasart.n@msu.ac.th

Abstract

This research aimed to study the behavior of Mahasarakham University’s staff members in the use of the university’s archival and information database, and to study problems and needs of use of the database by the staff members. The samples were 400 staff members from Mahasarakham University. Questionnaires were used as research tools. The reliability index of the questionnaires measured with Cronbach’s alpha was .89. The descriptive statistics - frequencies, percentages, mean and standard deviation (S.D.) were used for the analysis of the data.

The findings showed that most users of the Mahasarakham University’s archival and information database were the staff members who hold a bachelor degree working as an administrative officer, aged between 31-40 years with working experience of 2-10 years. Regarding the behavior of use, it was found that most staff members used the database for self-study, teaching preparation, and research. The frequency and time period of use were uncertain and the length of use was approximately 30-60 minutes each time. To most staff members, the database was mostly useful for working; they mostly used the database because it was easy, convenient, and quick to access the database. In terms of types of database used, serials published by the university were the most frequently used materials, and the least frequently used materials were souvenirs. The staff members mostly accessed the database from their personal computers and Google Chrome web browser was the most favorite. The largest numbers of users accessed the database via the university website at http://www.msu.ac.th. Regarding the problems of use, the staff members had the problem at the medium level. For the need of use, they wanted to use the database at the high level.

Keywords: University archives, Behavior, Archival and Information Database, Storage and retrieval System, Mahasarakham University
Introduction

In a globalized society, information is the key element in order to establish economic, social and cultural development. Information is important to the development of human resources. The so-called *information society* where the individuals have the knowledge and ability to distribute and apply information or often progresses quickly in terms of industry, technology and economy. This could lead to the development of the country (Sukhothai Thammathirat Open University, 1989).

Information can represent the progression of the society. An individual who has an access to information can apply the information to their daily life such as work, personal improvement, study, life planning and decision making. An archive is historical evidence, cultural heritage, and memoirs of the nation. It is valuable and useful for the administration of country. An archive is like a compass that can indicate the development of the nation in a correct sequence. If the archive is damaged or destroyed, it means the loss of memory and national heritage that cannot be called back (National Library of Thailand, 2009).

College and university archives are related to the daily lives of their staff members. In the universities, sources of administrative documents come from President Office and the corresponding offices where the documents are published and stored. However some documents are scattered in various faculties, institutions and units of the universitism (Uttho, 2001). An archive is both science and art. It technically requires international archival standards and management in collecting, storing, preserving documents in all formats. Along with conservation and maintenance of archival documents, it needs public relations to provide a proactive service as well (Rungruengsilp, 2010).

Mahasarakham University is an institution in higher education. The academic resources center of the university is recognized as the university’s library and is a center for study. The university archives and information unit is part of the center. The unit is responsible for providing a collection, storage, conservation, and preservation of the university’s archival information. One of its prominent services is the distribution of digital archives on the computer network. Presently, the Thai government also supports the use of electronic transactions. The Electronic Transactions Commission has announced the Rules and Procedures for Creation and Modification of Documents and Texts into an Electronic Form (BE 2553) written in the Government Gazette Volume 127, Part 124 (Government Gazett, 2010). The objective of the rules an procedure is to promote the reliability of the electronic transactions and legalization of the electronic transaction. Mahasarakham University has now put the main focus on resource sharing. Its success in planning and implementing of network is dependent on the network resources, staff, budget and work planning for cooperation, including information and communication technology (Prawatwachara, 1996). Information created by the university, after 25 years it will become historical documents and archives of the institute, as definition in the National Archives Act B.C. 2556 Volume 130 Episode 23 announced on March 31, 2013 (Government Gazette, 2013). The university archival and information database has been developed and the storage and retrieval system is called the Mahasarakham University Archival and Information Database. This research aimed to study the users’ behavior of use, the problems of use and the need of use of the archival and information database on the Mahasarakham University network. The results from this research can be used as a guideline on improving the Mahasarakham University Archival and Information Database to meet the needs of users. As a source of wisdom, Mahasarakham University Archival and Information Database Center committed to provide information for further study and research.
Objectives

1. To study behavior of use of the Mahasarakham university archival and information database by the Mahasarakham university’s personnel.
2. To study problems of use of the database by the university’s personnel.
3. To study needs of use of the database by the university’s personnel.

Population and samples

The population of this research includes 5268 staff members of Mahasarakham University. The samples were 400 staff members selected by using Yamane’s sampling formula (Yamane, 1973) with the reliability at .89 and error index of 5% and confidence

Research Tool

The research tool was a questionnaire consisting check listed questions, rating scaled questions, and open-ended questions. The questionnaire is divided into 5 parts and details are as follows:

Part 1: Check listed questions on demographic data of the respondents.

Part 2: Check listed questions on the behavior of use of the Mahasarakham university archival and information database by the respondents.

Part 3: 5 rating scaled questions on the problems of use of the Mahasarakham university archival and information database by the respondents. The 5 rating scales are highest, high, moderate, low, and lowest.

Part 4: 5 rating scaled questions on the need of use of the Mahasarakham university archival and information database by the respondents. The 5 rating scales are very much, much, medium, less, and least.

Part 5: Open-ended questions for Comments and Suggestions on the Mahasarakham university archival and information database system management.

Data Analysis

The descriptive statistics including frequencies, percentages, mean and standard deviation (SD) are used for the analysis of data.

Results

1. Demographic Information

Demographic information of users includes job status, job position, age, qualification, and experience in using the Mahasarakham University’s database. The demographic data were analyzed by frequencies and percentages. The findings were as follows:

1.1 For job status, the respondents included university’s officials (54.09%), temporary employees (23.50%), and civil service officials (15.30%).

1.2 For job positions, 64.41% of the respondents were administrative officers, 19.57% were lecturers, and 12.81% were section heads.

1.3 For age, 39.14% were 31-40 years old, 35.59% were 20-30 years old, and 19.93% were 41-51 years old.

1.4 For education, 52.67% of the respondents held a bachelor degree, 36.3%, a master degree and 6.40%, lower than a bachelor degree.
1.5 For working experience, 43.77% had 2-10 years working experience, 33.81% had more than 10 years working experience, and 22.42% had less than 5 years working experience.

2. Behavior of use of Mahasarakham University’s archival and information database
The findings on the behavior of use of Mahasarakham University’s archival and information database were as follows:
2.1 In terms of the purposes of use, the respondents reported that they mostly used the database for their self study and research (98.93%), followed by for working (87.19%) and for academic purposes (74.02%).
2.2 For frequencies of use, 34.90% of the respondents reported that they occasionally used the database, 16.01% reported that they used them once a month, and 15.65% said they used them once a week.
2.3 For the time period, 44.83% of the respondents could not give a specific time of use, 25.90% mostly used the database from 12.01 to 16.00 pm and 16.37% mostly used them after 16.01 p.m.
2.4 Regarding the duration of used, most users used the database for 30-60 minutes each time (49.82%); 36.30% used them less than 30 minutes each time, and 13.88% used it more than 60 minutes.
2.5 For the benefit of the database, most respondents reported that they used the database for their work (49.82%), their education (33.10%), and their personal improvement (16.01%), respectively.
2.6 In terms of reason of use, 51.60% of the respondents used them because they could be accessed easily and quickly. 42.35% said they used them because they included a lot of the information about the university. 24.91% said they used them because the information obtained was interesting and met their needs.
2.7 For types of materials used, the respondents mostly used the university’s periodicals (56.60%), followed by curriculums’ documents (52.00%), and biographies of executives (43.41%), respectively. On the other hands, the less used materials were the university’s clippings and hall of fame documents, and the least used materials were souvenirs (6.05%).
2.8 For medium of access, most respondents accessed the database by personal computers (52.67%), laptops (29.54%), and smart phones (9.96%), respectively.
2.9 For web browser used, Google Chrome was the most frequently used web browser (54.80%), followed by Internet Explorer (33.10%), and Fire Fox (11.39%), respectively.
2.10 For the website used to access the database, most respondents accessed the database from university website at http://www.msu.ac.th (94.66%), library website at http://www.library.msu.ac.th and Google search engine (73.66%), and the university’s archival and information database website at http://archives.msu.ac.th/home (27.04%), respectively.

3. Problems of use of Mahasarakham University’s Archival and Information Database
The problems of use of the university’s archival and information database reported by the respondents are shown in Table 1 below.

<table>
<thead>
<tr>
<th>Problems of use of Mahasarakham University’s Archival and Information Database</th>
<th>N=281</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Unattractive user interface</td>
<td>3.17</td>
<td>0.93</td>
</tr>
<tr>
<td>2. Complicated accessing system</td>
<td>3.13</td>
<td>0.85</td>
</tr>
<tr>
<td>3. Not knowing the accessing processes or methods</td>
<td>3.00</td>
<td>0.92</td>
</tr>
</tbody>
</table>
4. Limited amount of archival materials
5. Archival materials found do not meet the needs.
6. Historical archives are not enough.
7. Low-quality image file
8. Low-resolution and incomplete digital full-text documents
9. Low-standard archival cataloging
10. Up-to-date information
11. Incorrect linkage of digital full-text documents
12. Unable to download digital full-text documents
13. Convenient and quick in recalling the database
14. Typographical errors of the information
15. Other problems

The findings above showed that users had problems in the use of Mahasarakham University’s archives and information database at the medium degree (\( \bar{X} = 3.01 \)). The highest means was for “limited amount of archival materials” (\( \bar{X} = 3.20 \)), followed by “unattractive user interface” (\( \bar{X} = 3.17 \)), and “unable to download digital the full-text documents” (\( \bar{X} = 3.14 \)) respectively.

4. Needs of Use of Mahasarakham University Archival and Information Database

The need of use of the university’s archival and information database reported by the respondents are shown in Table 2 below.

Table 2: Need of Use of Mahasarakham University’s Archival and Information Database

<table>
<thead>
<tr>
<th>Needs of Use of Mahasarakham University’s Archives and Information Database</th>
<th>N=281</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \bar{X} )</td>
<td>SD</td>
</tr>
<tr>
<td>1. Attractive and fashionable design of user interface</td>
<td>3.72</td>
<td>0.78</td>
</tr>
<tr>
<td>2. Easy and uncomplicated accessing process</td>
<td>3.80</td>
<td>0.77</td>
</tr>
<tr>
<td>3. The information is reviewed before distributing</td>
<td>3.74</td>
<td>0.77</td>
</tr>
<tr>
<td>4. Links to full-texts from the table of contents</td>
<td>3.73</td>
<td>0.80</td>
</tr>
<tr>
<td>5. Good cataloging standard for digital materials</td>
<td>3.76</td>
<td>0.82</td>
</tr>
<tr>
<td>6. Subject heading for the archival and information materials</td>
<td>3.78</td>
<td>0.79</td>
</tr>
<tr>
<td>7. Good cataloging standard for the archival materials</td>
<td>3.79</td>
<td>0.82</td>
</tr>
<tr>
<td>8. Showing the copyright information of the archival materials</td>
<td>3.77</td>
<td>0.82</td>
</tr>
<tr>
<td>9. Increase in numbers and types of materials in the database</td>
<td>3.83</td>
<td>0.82</td>
</tr>
<tr>
<td>10. Good data storage standard with correct, complete, and up-to-date information</td>
<td>3.82</td>
<td>0.87</td>
</tr>
<tr>
<td>11. Other needs</td>
<td>3.38</td>
<td>1.07</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3.73</strong></td>
<td><strong>0.66</strong></td>
</tr>
</tbody>
</table>
The findings above showed that the degree of need for the use of Mahasarakham University’s archival and information database, reported by the respondents was at the “much” level ($\bar{X} = 3.73$). The highest means was the need to increase numbers and type of materials in the database ($\bar{X} = 3.83$), followed by the need for good data storage standard with correct, complete, and up-to-date information ($\bar{X} = 3.82$), and the need to have easy and uncomplicated accessing process of the database ($\bar{X} = 3.80$) respectively.

Discussions

1. Demographic Information

Most of the respondents were the university’s officials mostly working as an officer, aged between 31 to 40 years old, holding a bachelor’s degree, and with 2 to 10 years working experience. This is because almost half of the staff members in Mahasarakham University (48.61%) are university’s officials and more than half of them are administrative officers (Mahasarakham University, 2013). As Mahasarakham University was established in 1995 and is one of the newest universities in Thailand, most of its employees are at the middle age (31-40 years old) with less than 10 years working experience. Most of the staff members are the university’s officials because the university is an autonomous university, which means that the university has to hire its employees by itself, not by the government.

2. Users’ behaviors

In terms of behavior of use, it was found that most respondents used the MSU archival database for educational purposes. This finding is similar to the study of Khamwanna (2008) which reported that most students searched information for their educational purposes. In terms of frequency and time period of use, most respondents used the database at their convenience without fixing the frequency and time period of use. This is maybe because university staff used the database only when they find them necessary for their work. For the duration, most of them used the database for 30-60 minutes. Most of them believed that the database was beneficial to their work the most. This is in line with a research study of Limpadung (2008) which examined the behavior of use of the information by Walailak University staff and found that the staff used the information mostly for educational administration at the ‘very much’ degree. The respondents also reported that they used the database for self education, communication, collecting and storage of electronic information, and obtaining necessary information. Most of them said that they used the MSU archival database because it was easy, convenient and quick to access the database. This is similar to the previous study which pointed out that the database was developed to support variety of digital files, therefore, it was easy and convenient for users as they could access it anytime and anywhere (Panpimyai, 2010). In terms of type of materials used, the respondents mostly used the university periodicals which quickly reported news and activities of the university. Most users preferred the periodicals because they were interested in the university’s news. The archival materials that used by users the least were souvenirs. This is may be because most users did not know the importance and use of souvenirs. This finding is similar to that of Nuruang (2007), which found that the Royal Thai Decorations and Awards was the least used archival material. In terms of access tools, most of them used personal computers and Microsoft Office for Windows to access the database. Limpadung (2008) and Wongsate (2014) also reported the same trend. For the web browser, the most popular web browser was Google Chrome. This is probably because Google Chrome is one of the most friendly and safe web browsers. The Google Chrome technology helps users search easily. Khamwanna (2008) also found that the most popular search engine among Uttaradit Rajabhart University’s students was Google. And they used it more than Thai search
engines and other engines. The finding showed the same trend with a study of Lakhawan (2008) which also found that the favorite web browser among Thai teenagers in Bangkok metropolis was Google Chrome because they found information they needed by the Google search engine. Sunkthong & et. al. (2008) studied the use of Internet by the students in Phetchabun Rajaphat University and reported that the most used search engine was Google Chrome. Finally, the respondents mostly accessed the database via the university’s webpage http://www.msu.ac.th. This may be because the university’s website is a focal point of the university’s information.

3. Users’ problems
The findings showed that the degree of the problems in the use of Mahasarakham University’s archival and information database of the respondents was at the medium level. The highest means was the problem regarding the limited amount of the archival materials. The finding is in line with Wongsate (2014), who also found that the main problems in the use of library materials was the lack of materials such as picture, CD-ROM, microform, etc. Nuruang (2007) studied the use of personal information by administrative staff at Prince of Songkla University and found that the users also had problems in the “medium” level. It is contrary to a study of Pornpho (2008), which found that university staff had problems in the “very much” level since most of the staff had limited knowledge in about computers and accessing processes. Therefore staff cannot be able to solve the problems of computer software/hardware when they faced it, and they did not have opportunities to train such skills. However, a study of Limphadung (2008) on use behavior of information technology of Walailak University staff found that the university staff had problems in the “less” level. Such problems were working procedure, hardware, staff, software, and data.

4. Users’ needs
The findings showed that the degree of needs for use of Mahasarakham University’s archival and information database was at the “much” level. The highest means was the need to increase the numbers and types of materials in the database. The finding is in accordance with that of Rujayachayakul (2013), which found that as digital publishing becomes more and more popular nowadays and in the near future due to the growth of information and communication technology, more digital archives should be added to university archives. Readers could access to more digital information on the Internet. Government also made a policy to support this by providing tablet computers for schools. Therefore, accessing and publishing of digital information has been increased as many Thai people use smart phones and tablet computers to access information. According to a study of Srinoot (2008) on behavior of users in Mueang Chiang Mai district towards using smart phones, people used smart phones for chatting, updating, social networking and browsing internet. In 2010, electronic documents or digital information which were distributed on the internet can be used in legal action, as described in the Electronic Transactions Commission's rules and procedures for electronic transactions in the preparation or convert documents into electronic data (Government Gazette, 2010). Digital archives could help conserve and preserve original documents which are valuable and memorable. Making them accessible in the form of digital is good in that they can be used longer than original materials (Veerachard, 2010). As a result, the government issue the National Archives Act B.C. 2556 to allow digital archives (Government Gazette, 2013).

Suggestions

1. Suggestions to relevant authorities
   1.1 Administrators should support and see the importance of the university archives especially providing supporting policies. Archival materials in Mahasarakham University’s archives were little because the acquisition and collection of archival materials were difficult. There is not yet a network of archivists in the university to create digital archives. Therefore, the
university should appoint the management board to take responsibility of digital archiving. The board should help cooperating and building a network of archivists to create more digital archives.  

1.2 University staff should study and research the history of their organizations and should record, store, and conserve the information in all types of archives because this information can be the organizations’ valuable intellectual property.  

1.3 There should be promotion and training on Mahasarakham University’s archives and information database for university staff aiming to enhance the use of the database.  

1.4 Mahasarakham University archives should contain other materials such as video of lectures for students who missed the class.  

Recommendations for Further Research  

1. The findings revealed that there was no archivist network in Mahasarakham University. Thus, it would be interesting and useful if different studies would be attempted to initiate such network.  

2. Management of Mahasarakham University archives should be studied.  

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References  


