Technology-based archives management: How much does it matter to organizations?

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Abstract

Technology-based record management, which is part of the development of information and communication technology (ICT) plays an important role for organizations in managing documents to be more effective and efficient. Thus, such training needs to be carried out, one of which is through community service activities. The purpose of this training was to educate participants to understand the importance of this training topic and be able to practice it directly as part of a technology literate society. This training was conducted by the community service team consisting of three lecturers and two students. The training was carried out virtually through the Zoom platform for four hours, which the community service partner was PCM Bekasi Timur. The stages are divided into four parts, 1) the delivery of core material and best practices; 2) a question-and-answer session; 3) the conclusion and summary of the material; and 4) the impressions and messages conveyed by representatives of the participants. The evaluation results showed that 6 (54.5%) participants were satisfied, and 4 (36.4%) participants were very satisfied, and 1 (9.1%) participant was not satisfied with the activities. In addition, they mostly showed their satisfaction and enthusiasm with the presented material and the delivery of spokespersons, which can also be seen from the positive impression of the participants. It is inferred that this training provides great benefits for participants and organizations to improve their archival documentation system.

Keywords: e-archive; information and communication technology; Technology-based record management

INTRODUCTION

Archives are an essential part of the activities of a country, company, business and organization in which they provide memory and evidence of policies and activities (International Records Management Trust (IRMT), 1999). In addition, archives are also a source of information, a source of evidence in the form of artifacts or objects when users are interested in aesthetic qualities, entity, physical form, sales space value, or associations (O’Toole, 1993; Shepherd & Yeo, 2003). Archives as a source of information are also used as a basis for decision making by a leader, both
manually processed archives and computerized archives (Sugiarto & Wahyono, 2015). Records are defined as information created, received and maintained as evidence and information by an organization or person, pursuant to a legal obligation or in a business transaction (International Standards Organisation (ISO), 2001). Along with the increasing and complex development of science and technology, especially in the early 20th century, digital-based archival recording has become imperative and useful for all modern organizations in storing information effectively and efficiently. Ochwo et al., (2018) asserted that the use of information and communication technology (ICT) in conducting business and sending information around the world has increased drastically. So that the change of ICT equipment from analog to digital is something that cannot be avoided by any organization in order to survive and adapt with the rapid changes. ICT is an instrument that facilitates the creation, processing and transmission of information through electronic means (Beckinsale & Ram, 2006; Luyombya, 2010) such as computer, television, internet, scanner and other media. Therefore, ICT is a tool that enables the management of digital archives (Ochwo et al., 2018).

Archives are one of the main assets in an organization to store all important information, so there needs to be a systematic, effective and efficient archive management or management to support organizational activities. Mingo and Cerrillo-i-Martínez (2018) state that records management improves information access facilities, transparency and accountability. According to Healy (2010), records management is the area of management responsible for the efficient and systematic control of the creation, reception, maintenance, use and disposal of records, including processes for capturing and maintaining evidence and information about business activities and transactions in the form of records. Record management provides an operational basis for effective transparency in public administration, as it enables the creation of quality documentation (authenticity, reliability, and integrity), traceability of decisions taken over time, a basis provision for planning programs, activities and budgets, simplification and standardization of the archive process, fulfillment of the right to fast access to information (accessibility and reliability) and preservation of records from time to time (Mingo & Cerrillo-i-Martínez, 2018). Digital records on the other hand refer to records that are created, communicated, maintained, stored, retrieved, and/or disposed of through computer technology (Duranti, 2010). Digital archives refer to ICT-based archives and are maintained using digital computer technology (Luyombya, 2010). In other words, technology-based management is the management of information and archive storage in the form of digital records through computer media.

As one of the largest modern Islamic organizations in Indonesia, Muhammadiyah, which has many organizational branches, needs to improve its archival documentation system, one of which is through technology-based or electronic archive management, which is a demand for technological progress. One of the branches of the Muhammadiyah organization, namely the Muhammadiyah Branch Manager (PCM) Bekasi Timur 2 which is a community service partner, has not used technology-based archive management or (e archives) due to several obstacles such as lack of human resources, and financial limitations. From this problem, the community service team is obliged to transform our knowledge and skills to support programs and activities at PCM.

Many previous findings have addressed the issue of archive. For example, studies indicate that there is a need to ensure proper records management, which includes transparency throughout the records life cycle. In addition, improving records management aims to promote transparency and prevent corruption (Mingo & Cerrillo-i-Martínez, 2018). Records are also used to support accountability when organizations need to prove that they have fulfilled their obligations or adhered to best practice (Shepherd & Yeo, 2003). Under the circumstance, the training of archive management is required in light of the literature review, earlier research findings, and the challenges partners face in enhancing their human resource capacities. In addition, the training
will improve the employee’s skill development, and technological advancements in general and archive management particularly at PCM East Bekasi. Thus, the main focus of this community service is to provide training in the use and application of information technology-based records management.

METHODS
Partner in community service activities is PCM Bekasi Timur 2 which is located in East Bekasi. The training was carried out virtually using the Zoom meeting platform on Sunday, from 9:00 until 13:00, according to the agreement with the partner. Initially we were going to conduct the training in person, considering the small number of participants and so that the training could be carried out more effectively and efficiently than virtually. However, due to technical problems and busy schedule of both parties, we finally agreed to carry it out online. Eleven people participated in this activity. The participants consist of leaders and employees who are responsible for the Muhammadiyah branch organization. The activity lasted for approximately four hours which focused on understanding archives, ICT, the importance of digital or electronic archive management and best practices for e-archive applications.

The stages of procedural training and the methods used consist of:

1. Providing insight and general knowledge about the concept of excellent service based on attitudes, concerns and actions; technology-based archiving management concept and digital archiving. This method is commonly called lecturing or the lecture method as a provision of knowledge to participants.

2. Demonstration method. This method was employed that one of us demonstrated the use of e-archives commonly used by many educational institutions and organizations. The E archive that we were demonstrating is the E Archive version 4.0 application, in the year of 2018.

3. The methods of question and answer, discussions and brainstorming were employed in this part. All participants were invited to ask questions, discuss and share ideas about the topics or themes that we had presented previously. In addition, we as spokespersons also could understand the problems and obstacles they face in managing archives.

4. Mentoring method. We have not been able to do this method because of several reasons. However, we are still open for consultations both virtual and by telephone or WhatsApp. Because the main obstacle is financial problems, we suggest sharing with several PCMs in the Bekasi area to reduce the cost burden.
FINDINGS AND DISCUSSION

Findings

The Community Service activity with the theme “Technology-Based Archive Management Workshop” at PCM Bekasi Timur 2, went well according to the plan that we had previously prepared. There are several things that we found after this activity based on the results of the evaluation that we gave to participants through the Google form as follows:

a. Impact after participating in workshop activities: all workshop participants gain new knowledge. This means that the need for information on archive management in community service partners is very necessary since they have never received training before, either the training from Muhammadiyah organizations at the central level or the training from outside the Muhammadiyah organization.

b. Participant satisfaction in participating in workshop activities: After attending the workshop, in general, around 6 (54.5%) participants were satisfied and 5 (36.4%) participants were very satisfied with participating in this workshop. Only 9.1% or one participant was dissatisfied with this workshop. This means that the information, knowledge and practice of the E Archive application that we provide, meet their expectations.

c. Spokespersons’ material mastery: all participants believed that all spokespersons had mastered the material presented at this workshop. This section is very essential for us as spokespersons because we can evaluate our overall performance in order to be able to provide better for future training.

d. Material delivery skills: Workshop participants declared that all spokespersons were able to convey easy-to-understand language. The ability of the spokespersons to communicate or convey information is crucial for transferring knowledge to the participants.

e. Service satisfaction by the committee: Overall, the services we provide (either the committee from the internal PCM or the committee from the collaboration of lecturers and students) get good numbers from the participants. That is 4 (36.4%) participants feel very satisfied and 6 (54.5%) participants feel satisfied, and 1 (9.1%) participant is not satisfied. It indicates that before the implementation of the activities and during the implementation of all activities went well. As the committee of this community service
activity, we also gave door prizes in the form of vouchers worth @ Rp 100,000 ($7.02) to three questioners. This is an imperative part to encourage and attract participants to ask questions and discuss more intensively and interactively.

In addition to the evaluation results that we obtained from the Google Form, we also requested several representatives to convey their impressions and messages so that we can develop and improve future activities. Some of their comments are as follows:

“**We are happy and grateful for the training activities we received from UHAMKA, but it would be nice if there was a next meeting in person or offline, either with the same theme or other themes that we needed.**”

“**Frankly speaking, this training is very valuable for all of us. It is very useful, spokespersons are qualified and we get new knowledge that we can apply, but because our branch is small, and for archival applications it costs quite a bit. Maybe this can be our agenda in the future, and we still hope that UHAMKA lecturers will help us in the future.**”

“I have never had the idea of e archive until I get it now from the training. Maybe after this, I will discuss it with the other members and hopefully that UHAMKA can accompany us to run e archive.”

From the findings above, based on the questionnaire we sent via Google form, the impressions and messages conveyed by the participants, and the enthusiasm of the participants who asked questions, we can conclude that technology-based archive management training activities are highly necessary, especially for modern organizations to be able to survive against increasingly sophisticated technological developments.

**Discussion**

Shepherd and Yeo (2003) emphasized that records provide access to precedents or previous work and thus save time and money by eliminating the need to create new resources. Records are also kept to guard against fraud and to enable organizations to protect their rights and assets. Therefore, good and neat management is needed so that it is easy to trace. Shepherd and Yeo (2003) also stressed the importance of records management because excessive records storage will lead to difficult retrieval and wasted resources, but failure to create adequate records or to maintain them properly may have more serious consequences. This is an important part of archive management to save costs, space and time as well as the possibility of document damage due to paper use (for those who still use manuals).

Although electronic archives have drawbacks such as the possibility of file damage due to viruses; competent human resources are needed, there is file manipulation because it is not strongly protected and file storage media does not support but electronic archive storage has advantages over print archives because it can be done online, offline and semi-connected (nearline) (Rifauddin, 2016). In addition, electronic document management provides an approach to storing most advanced records (Rosa et al., 2019). Read and Ginn (2011) state that there are four cycles in the management of electronic records, namely creation and storage, distribution and use, maintenance and disposition to make records management more efficient. This cycle really needs to be understood for leaders who are in control in an organization and employees who are responsible for administration in their organization. Thus, technology-based records management training activities play a great magnitude role for organizations and employees in
documenting records, documentation or archives more effectively and efficiently. Furthermore, ample funding is also required for organizations to acquire the necessary infrastructure, training and skill development for professionals in archives and records management (ARM), and the creation and implementation of clear policies regarding the integration of AI in records management, as research results indicate that these are necessary given the increasingly rapid advancements in technology, including the use of artificial intelligence (AI) (Tsabedze, 2024).

CONCLUSIONS

Electronic archives have an important role in the administrative system that aims to manage records more effectively and efficiently. Individual skills in mastering information and communication technology are very helpful for the success of an organization to be able to survive and compete. Thus, technology-based archive management training is needed for any organizations, for educational institutions and individuals to keep up with increasingly complex and sophisticated technological changes, especially in the 21st century.

Although the community service activities carried out at PCM Bekasi Timur 2 went well, there were some unavoidable limitations, namely the lack of training time due to the busyness of the partners which could only be done on Sundays, unstable internet connection of some participants, and certain other problems that do not allow us to meet face to face with participants. We hope that this activity can become a regular agenda in several PCMs in the Bekasi area to apply electronic archives to meet the needs of a growing organization.

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**Conflict of Interest Statement:** The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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