

Analysis of the Implementation of Digitization at the National Archives of the Republic of Indonesia

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Abstract

The aim of this research is to examine the obstacles that influence the archive digitization process at the National Archives of the Republic of Indonesia. Researchers collect data by visiting the research location directly. Research data was obtained through literature studies such as journals, books, direct observation by going into the field, and interviews with informants related to the topic studied. The research method used is descriptive analysis which aims to explain or describe a situation or phenomenon that occurs. This method allows researchers to export aspects more widely. The researcher selected 4 (four) informants who met the criteria based on the research objectives so that the researcher obtained clear and accurate information in the form of statements, information or data that could help in understanding the problem. It is hoped that the results of this research will add insight into the implementation of archive digitization.

Keywords: digitization, archives, barriers to archive digitization.

1. Introduction

Technological developments in the current era have extraordinary potential to revolutionize various aspects of human life, starting from the industrial, transportation, education, entertainment, and communication sectors experiencing significant changes. This change in technological progress can be seen in one of the transformations from paper archive media to computerized or digital archives.

Implementation of archive digitization makes it easy for users to search, find, distribute, and process data. Apart from that, the existence of digital archives helps researchers and the public to access information according to their needs from anywhere. The implementation and use of computer systems in archives management began in 1964. At the international congress of archivists in 1964 in Brussels, issues regarding digital archives began to be discussed. One of the bodies that was a pioneer in the development of digital archives in the 1960s was The Federal Republic of Germany.

The use of digital archives in Indonesia began with the increasingly advanced development of Information and Communication Technology and digital archives grew rapidly and were really needed in 2004. The existence of digital archives itself has a significant impact on the preservation of archives. So that this can be done, a system for archival management and storage is needed that is good and in accordance with applicable regulations. In this case, researchers conducted pre-research regarding the implementation of archive digitization at the National Archives of the Republic of Indonesia. The results of the questionnaire are expressed in the image diagram as below.

Based on the diagram above, all respondents assess that the transition from archives to digital has been implemented. Even though digitization is increasingly important, the existence of physical archives still has value and usefulness that cannot be ignored. Therefore, maintaining a balance between physical and digital storage is an important role in records management.

2. Literature Review

2.1 Digitization

The definition of digitization from several experts, such as according to Hasbi AS, means that digitization is the transfer of print or analog media into digital or electronic media through a scanning process, digital photography, or other techniques. According to Khosin, digitization is the process of changing graphic information available in paper media to digital format. In

the process, digitization requires time, budget and experts who have sufficient knowledge of the technique.

Digitization can be concluded to refer to the transformation from paper form to digital or virtual form. This process involves the use of hardware such as a laptop or computer, as well as software to process, manage, store, and distribute data in digital format. This digital development provides the benefit of easy access and sharing of information. This is very important in various aspects of life today, where information must be fast and easy to access. Digitization can also create cost savings by reducing the need for paper documents and other analog materials.

2.2 Archive

Archives are defined as important records in an organization or agency because they contain several information. The existence of archives needs to be considered and managed to facilitate the retrieval of required information. Archives play an important role in an agency, namely serving as evidence that supports accurate decision making and is a source of information.

To fulfill this function, effective and appropriate archive management is needed so that the value of the information contained therein is maintained and can be used as material for consideration in making policies and decisions in the future (Sutrisno & Christiani, 2019). Of course, archive management that is not carried out properly and correctly in an agency or institution will hinder the running of the office. This is because poor archive management makes it difficult to quickly retrieve them when needed.

Sularso Mulyono (2003), states that archives are the arrangement of documents into storage that is orderly and in accordance with standards, making it easier to find them quickly. According to Sedarmayanti (2015), defining archives is considered as a source of information that supports accurate and fast decision-making regarding problems that occur. Meanwhile, according to Dick Weisinger, he explains that "A document is recorded information or an object which can be treated as a unit. In short, records are a subset of all documents that enter or that have been created within an organization. Records are that group of documents which contain information about actions, decisions an operation that have occurred in the organization" (Rosalin, 2017).

Based on the opinions of these experts, it can be concluded that archives are a source of recorded information that is stored properly and correctly, making it easier to find again and can function to help make decisions quickly and precisely regarding a problem.

2.3 Archive Digitization

The emergence of digital system changes or digitization is an inevitable part of the modernization process in the digital era. Operational developments can certainly lead to an increase in the number of archives produced, as well as the need for fast access to information. Transforming archives into digital format is an alternative solution for managing archives which were previously done manually or on a paper basis.

Digitization provides several benefits in increasing the efficiency and effectiveness of archive management. The following are some of the positive impacts of implementing archive digitization, including (Siregar, 2019):

- a. A digital archive system allows fast access to required documents.
- b. Full-text search by searching for files based on keywords or names and finding them in full text document form.
- c. It is unlikely that the file will be lost, this is because we will only see it on the monitor screen or print it without being able to change it. If the file is moved, you can search by word or file name.
- d. Archive documents digitally, minimizing the risk of document damage or blurring due to age.
- e. Sharing archive documents will be easy via LAN or internet.
- f. It is easier to recover data compared to recovering paper documents that have been partly burned or affected by flooding or theft, backing up data will be difficult again.

However, in its implementation, digitization cannot be separated from several obstacles, such as:

- a. Budget, digitization certainly requires a fairly large budget because it requires hardware and software in the process.
- b. Another obstacle experienced is the readiness and availability of adequate human resources, both from staff as implementers who understand digital technology developments and at the policy-making level.
- c. Availability of infrastructure to realize its operations. Digitization activities are interconnected and complex activities, so it requires the development of other facilities and infrastructure.
- d. Policy, this activity requires operational standards that are used as a common reference so that there are clear guidelines and procedures related to work operations. (Tuty Hendrawati, 2014).

3. Material and Method

The research design used is a qualitative approach. This approach was chosen to collect data and information related to variables based on the subjective opinions of sources directly involved.

According to Sugiyono, descriptive qualitative research is research that aims to explain or describe a situation or phenomenon that occurs. This research was carried out through in-depth observation of objects related to the objects studied. So, this method allows researchers to export the aspects being measured more broadly.

The data sources that researchers use are primary data which are employees or staff at the place where the research is carried out and secondary data sources which come from literature studies. The sampling technique in this research is purposive sampling technique. Researchers select samples that match the criteria based on the objectives of the research. The criteria for informants in this research are employees in the archive digitization division who have worked for at least 2 years.

a. Design Study

In this study, researchers collected research data through:

1. Literature Study

Researchers obtain data through literature studies by studying and reviewing theories from various references such as journals, books, and previous research. The purpose of this technique is to examine problems so that they can be analyzed scientifically.

2. Observation

According to Nawawi and Martini, observation is the act of systematically observing and recording the conditions or elements seen in a phenomenon or event at the research object (Gainau, 2016). Observation is a way for researchers to be directly involved or integrated with the thing they are researching, and it is also possible to document it.

Observations are carried out by direct visits to the locations being observed and researched so that researchers can be more sensitive in observing problems that exist in the environment. This data collection technique using observation involves a direct approach to the research object in the form of digitization implemented in the company and produces answers that are relevant to those expressed by the informant.

3. Interview

Interviews are a technique of collecting data and a certain amount of information by asking questions directly to the informant. According to Masri Singarimbun, an interview is a question and answer interaction between two or more people, whether carried out directly or through intermediary media (Gainau, 2016).

In the context of qualitative research, interviews are the most dominant data collection technique. Through interviews, researchers can collect a variety of information from informants in various contexts, so that most of the data is obtained from the interview process. To ensure the objectivity and accuracy of the data obtained, it is important for researchers to use valid interview instruments or guidelines to produce appropriate data.

b. Data Analysis

The following are several stages carried out by researchers in carrying out data analysis:

1. Data Collection

Researchers collect data by going directly to the research location. The research data was obtained through literature study, observations, and interviews.

2. Data Reduction

Data reduction helps researchers to provide a clearer picture and makes it easier for researchers to retrieve relevant data. Data reduction allows researchers to sort data as deemed necessary.

3. Data Presentation

Sugiyono stated that in qualitative research, data presentation is carried out in the form of short descriptions, charts, flowcharts, and the like. Activities in presenting data are also part of data analysis, making it easier to understand what is happening and the data can be organized.

4. Drawing conclusions/verification

Data obtained from observations and interviews allows researchers to make temporary conclusions. At this verification stage, the researcher re-examines the conclusions that have been made to form a conclusion.

5. Result

Archive digitization is the transformation of archives into digital form, making it easier for users to access the information they need. This implementation also needs to be done as an effort to preserve archives in the long term. Based on the observation results, archive

digitization has been carried out well and can be easily accessed via the ANRI website. However, in the operational process there are obstacles that can occur.

Participant A: "The obstacles experienced were equipment that experienced errors or was damaged. This is because there are several equipment components that are difficult to find and therefore require time to recover."

Participant B: "The process has gone well, but obstacles are experienced in this process if the machine used is damaged and accuracy is needed in the process so that no archival information is missed."

Participant C: "Obstacles in this process are caused by equipment in the operational process that is damaged or not available. "For example, like the process of digitizing cassettes used in ancient times, a tap player machine was needed for the process, whereas according to regulations it is not allowed to use used machines."

Participant D: "Infrastructure is experiencing problems. For example, a machine that is no longer functioning because it has been used for a long time."

6. Discussion

Obstacles in digitizing archives can be a serious problem and can disrupt the smooth operation of the office. Based on the results of observations and participants' answers, the obstacles that occurred were that the equipment used in this process, such as machines, were damaged. This is an important issue and must be reviewed quickly because machines are the main equipment in the archive digitization process. This is supported by the statement from Tuty Hendrawati (2014) in point 3 which explains that digitization activities are interconnected and complex activities, so it requires the development of facilities and infrastructure and the availability of adequate infrastructure. When these machines are damaged, it certainly causes the employee's work process to stop, and it takes time for repairs until the process can run again. In an effort to overcome this, related parties will schedule checks and establish collaborative partner relationships with related parties.

7. Conclusion, Implication, and Recommendation

Archive digitization makes it easy for users because it can be accessed over long distances. Apart from that, archive transformation is an effort to overcome the physical condition of archives that are damaged due to frequent use or environmental factors such as humidity, temperature, or animals. However, the process is still hampered due to damaged equipment. This

is a problem that can certainly occur considering the limited period of use of the machine and it can become obsolete. Therefore, regular scheduling to check the condition of the equipment is the right solution to extend the service life of the machine and avoid damage during the digitization process.

Based on the discussion and conclusions outlined previously, the researcher proposed several recommendations including:

- a. It is hoped that future researchers will be able to more widely explore perceptions regarding the implementation of archive digitization today.
- b. To get better results, researchers can add the required documentation so that the results obtained can be better.

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