Archive Management in the Digital Age: Development of Village Administration Systems

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Abstract
This study aims to produce a website-based village administration system in Malang Regency which tested for feasibility by validator and tested effectiveness by village officials. This type of research is Research and Development which consists of eight steps, namely Potential and Problem, Data Collection, Product Design, Design Validation, Design Revision, Product Testing, Product Revision, and Final Production. This research uses quantitative and qualitative data. The results of this study that the product has a feasibility level with category "Very Good" and after through trial phase, respondent declares effective and agrees if village administration system is implemented in the village office.

Keywords: archive management, village administration system, digital era

Introduction
The development of science and technology requires both government and private organizations to take advantage of these developments in the implementation of the work of an organization (Battagia, 2017; Lehtinen et al., 2019; Giannopoulou et al., 2019). The government should always keep abreast of developments in the community and the surrounding environment in order to be able to provide good service (Gao and Lee, 2017; Qian et al., 2019; Loch et al., 2018). Appropriate management is also needed to achieve the agency’s goals (Chams and Gracia-Blandon, 2019). Management indicators of an organization can be said to be good, one of which can be seen from the management of the archive (Engelman, 2019; Barthelemy et al., 2018). The archive is a source of information created by a person or organization and can function as a reminder tool (Barthos, 2013).

The need for information is the cause of every organization competing to carry out information management by utilizing technology (Mitic et al., 2017; Altinay et al., 2016; Azma et al., 2012). At the village office, archives are very necessary (Smith, 2016). Village administration includes general administration, population administration, financial administration, development administration, and BPD administration. Electronic records management includes the activities of creating and storing, distributing, reusing files, maintaining and disposing (Rifaudin, 2016). However, not all village offices can implement the village administration system. This is due to the lack of facilities such as computers and internet networks and human resources, in this case village officials whose level of technological understanding is still lacking (Moghaddam, 2007; Nikolow et al, 2013).

One effort to overcome these problems is to develop a village administration system that can be used as a medium for managing records electronically. The existence of this system is expected to increase effectiveness in managing records (Pharow and Blobel, 2005; Bountouri and Giannakopoulos, 2014; Luscombe and Walby, 2017).

The importance of records for an organization and the various impacts of archiving problems that may arise from conventional filing systems, the electronic filing system becomes important and interesting to study to be applied in an organization including village offices (Fenton, 2006). This article aims to produce a website-based village administration system to facilitate and facilitate archival storage in Malang Regency, which is tested for eligibility by a validator and tested for effectiveness by village officials.
Village government administration is a series of activities of the Village Head and Village Officials to serve and improve the welfare of the village community (Higau, 2015). The work steps that must be carried out in the administration of the village government are correspondence (correspondence), archives, and bookkeeping (Suryawan & Westra, 2004). The village administration system is a unit of activities to implement the recording of data and information, as well as the structuring and issuance of documents relating to village government management in the village administration book. Asriel, et al. (2016) concluded that there are five archival storage systems, namely the alphabetical system, the subject / problem system, the chronological system, the number system, and the regional / geographical system.

Website is a media that consists of a collection of web pages that contain information that can be accessed by the general public via an internet connection throughout the world (Sarwono, 2015; Riaz et al., 2018; Alkhateeb and Alhadidi, 2018). The term in a website is the homepage. Yuhefizar et al. (2009) homepage is the start page that appears on a domain where users can click menus and move to (other web pages using hyperlinks, while the website is content on the domain. So it can be concluded that the website has three components, namely homepage, link, and content.

Methods

This type of research is Research and Development which consists of eight steps, namely (1) Potential and Malasah, to determine the potential and problems in this study obtained by interviewing the records manager at the Permanu Village Office (2) Data Collection, researchers conducted two ways to collecting data, namely by interviewing and observing (3) Product Design, the village administration system is designed using a static website (4) Design Validation, this step is carried out by two validators, namely media experts and material experts. The results of this design validation are used as a basis for revising the product design. (5) Design Revision. From the validation results, the deficiencies and weaknesses of the product can be identified, the researcher can find out the parts information that needs to be revised through the questionnaire results that have been filled out by medi experts and material expert. (6) Product Trial, this stage is conducted on three users, namely the Permanu Village Head, the Head of General Administrative Affairs, and Staff. To evaluate the results of product trials the researchers used a questionnaire given to users to obtain comments and suggestions as well as information regarding the effectiveness of the village website-based static administration system (7) Product Revision, product revision refers to the questionnaire, comments and suggestions given to users or devices villages at the product trial stage (8) Final Production, in this research and development the final product is a static website-based village administration system.

Results and Discussion

The village administration system developed is called e-SiAdes, which contains several menus, namely (1) Archive Search Menu Enter to search the archive of incoming mails that have been stored, (2) Menu Archive Search Menu Offices to search the archives of official outgoing letters that have been stored, (3) Community Service Search Menu for searching outgoing community service mail records, (4) Land Letter Search Menu for searching outbound land mail records, (5) Incoming Archive Menu to display incoming mail data, (6) Official Letter Archive Menu to display official outgoing mail data, (7) Community Service Archive Menu to display outgoing community service data, (8) Land Letter Archive Menu to display outgoing land data, (9) Add Archive Login Menu to add new incoming mail archive data, (10) Add Official Letter Archive Menu to add new official outgoing mail file archives, (11) Add Archive Mail Menu Community Services to add new data out of community service letters, (12) Add Land Letter Archives Menu to add new land outgoing data records, (13) Archive Report Menu to print archive reports automatically within a certain period of time, (14) Account Menu for add, delete, or edit the archive manager account in the website-based e-SiAdes application.
Figure 1. Initial appearance of e-SiAdes (in the form of Malang Regency logo and Side Navigation)

Figure 2. Display of the e-SiAdes main menu

Figure 3. Chart of e-SiAdses menus
Based on the results of the validation with media experts, the website-based village administration system was declared "Very Good". The results of the material expert validation stated that the static website-based village administration system was declared "Very Good". Thus it can be concluded that the village website-based static administration system is feasible to be tested on village users or devices. After being tested on 3 respondents (village officials), the response was obtained that the respondent agreed that if the village administration system was based on a static website implemented at the village office. So based on the product trial results it can be said that the website-based village administration system is effective to be applied at the Village Office.

The electronic village administration system developed is called e-SiAdes which is a static website-based village administration system which is a simple system or application created using the PHP My Admin application. This application is specifically used for archive storage activities and the rediscovery of records at the Village Office in Malang Regency. By using a website, archival storage can be done quickly and precisely (Imasita, 2015; Ziyu and Haining, 2012; Grahl et al., 2017).

The use of archival systems in the digital era has several advantages, especially in the management of records (Badilini, 2018). Management of electronic records is considered more effective, because of the ease of sharing, ease of access, and easy to establish communication with other parties (Putranto, 2017). In addition, digital records management also makes it easier to rediscover archives, easily determine the catch word according to the filing system applied in an organization, can save archival storage, and can reduce the level of damage and loss of records because the storage is done digitally or in the form of soft files that have been stored in the database (Wang, 2003; Brundin-Mather et al., 2018; Rogier & Lanier, 2002; Demirtel & Bayram, 2014).

Based on the results of the validation, it can be concluded that some of the advantages of e-SiAdes, including the recording of incoming and outgoing mail archives not using books (Fenwick & Brownstone, 2003), Archive serial number entry automatically (Habiburrahman, 2016), Archive search using five archiving systems (Walker, 1996), There are features for uploading and downloading archive files (Kallberg, 2012), Archive reports are already available in the application (Latif & Pratama, 2015), Village electronic administration system is offline (Rifauddin, 2016), increase effectiveness and speed in managing records (Firmansyah, 2014).

While the weakness of e-e-SiAdes is to use e-SiAdes, it needs to be installed on a computer first (Trimarsiah & Arafat, 2017) and date format in e-SiAdes mm / dd / yyyy (Imasita et al., 2015). As a result of the product trial, the village leader gave a suggestion to add one type of outgoing letter in the system, namely the Land Letter. Previously there were only official outgoing letters and outgoing community service letters. That is because the three types of outgoing letters are recorded in different books. So it needs to be revised to complete the type of land certificate in the village website-based static administration system. Most village officials agreed that e-SiAdes was applied in the village office for archival management because e-SiAdes was considered more effective than conventional archive storage and rediscovery of archives. This is supported by Madhusudhan & Nagabhushanam (2012: 2) that the website is widely implemented by government and private institutions throughout the world to improve the quality of services to be more innovative to meet the needs of the community / user.

Conclusions

The electronic village administration system (e-SiAdes) is a static website-based administration system which means it can be run without using an internet connection. e-SiAdes has several features including the feature to store incoming mail archives and official outgoing mail archives, community and land services, archive report features, and the existence of an account menu. Based on the results of the validation of the media expert and the e-SiAdes material expert, it is feasible to be applied in the village office. This system has several menus that support records management electronically. In addition, based on the results of product trials of three village officials, e-SiAdes is considered effective for implementation at the village office. If the
village office adopts e-SiAdes as an archive storage medium it will facilitate and accelerate the storage and recovery of archives and reduce the number of damaged archives.

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