

E-Government Design for Sub-District in Public Service Improvements

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Article Info

Volume 81

Page Number: 1172 - 1183

Publication Issue:

November-December 2019

Article History

Article Received: 3 January 2019

Revised: 25 March 2019

Accepted: 28 July 2019

Publication: 25 November 2019

Abstract: E-Government was an activity carried out by the government using Information Technology (IT) to provide services to the community. Given the public's demands on the information presented in a well integrated. E-Government was currently the right solution for the local government to convey information to the community quickly, precisely and efficiently with the presence of website technology that will greatly assisted in making e-government information systems. Web technology was a modular application that was able to stand on its own and can be explained itself, so it can be called up through the Internet or through other electronic devices. The use of website technology in making e-government was very important, because it can be used for various purposes, one of which can be used to share information that is Internet. In this e-government of Sukoharjo Sub-district, its use was directed to the application to find out overall regional data through population data to local infrastructure data.

Keywords: E-Government, Website, Sukoharjo Sub-district, Information System.

1. INTRODUCTION

1.1. Background

Along with the development of information and communication technology, human life activities in various sectors of the middle have changed. Likewise, in the public service sector conducted by Sukoharjo Sub-district, the development of information and communication technology has created a public service model conducted through e-Government. The bureaucratic government service and the rigid impression is eliminated through the utilization of e-Government to be more flexible and more oriented to user satisfaction. E-Government offers public services that can be accessed 24 hours, anytime, and from anywhere the user is. E-Government also allows public services not to be done by face-to-face so that the service becomes more efficient. Realizing the benefits of E-Government, the Indonesian government since 2003 has issued a policy of implementing e-Government in the form of Presidential Instruction No. 3 of 2003. (Hartono, Dwiarso Utomo, Edy Mulyanto, 2010)

Public services continue to increase along with the emergence of new needs, one of which is: rapid and accurate exchange of information from both the government and the community and decision making quickly and accurately. Realizing the benefits of information technology, the government of Sukoharjo Sub-district needs to build a network of Information and Communication Technology (ICT) as a solution to overcome barriers of limited access between regions. Along with online network development, Sukoharjo Sub-district government needs to start community service and decision-making quality because it is supported by fast and accurate data.

By implementing the online system, many benefits can be learned. With this online system, Sukoharjo Sub-district can save costs and do not waste time, because the process of sending data is done by online. The system can also be used to access the Internet with faster file download/upload access. E-Government is expected to meet the needs of the community

and benefit all people in Sukoharjo sub-district, which is administrative and used to empower the government and explore the potential of sub-districts and villages.

1.2 Research Question

Based on the background of this study that has been displayed above, as the problem that will be studied is as follows:

1. How to design E-Government in Sukoharjo Sub-district?
2. How big is the influence of E-Government on service to the public on Sukoharjo Sub-district?
3. What are the benefits of implementing E-Government in Sukoharjo Sub-district?

1.4. Research Limitation

Based on the descriptions that have been presented in the background above, the writer has limited this study to ideas or thoughts in the implementation of E-Government application in the government system of Sukoharjo subdistrict in the effort to improve services to the public.

1.5. Research Objectives

The objectives of this study are as follows:

1. To find out how much the influence of E-Government has on service to public in Sukoharjo Sub-district.
2. To find out how much E-Government benefits in Sukoharjo Sub-district.

1.6. Research Benefits

From the study entitled "The Design of E-Government Implementation in the Adiluwih District Government System in an Effort to Improve Services to the Public", the writer hope to be able to benefit from the study that has been conducted. The benefits that may be obtained from the results of this study are:

1. Theoretically, the benefit of this study is to be able to develop theories that exist so that it can enrich science.

2. Practically, the benefit of this study is to be a reference material for Sukoharjo Sub-district if it will implement E-Government to improve its public services.

3. As a learning facility, which is trying to make the work of writing can be read, enjoyed and understood to improve the quality of service in each agency.

2. Theoretical Basis

2.1. Definition of System

According to Nugroho (2008:17) revealed that "the system is a group of elements that integrate with the intent of the same person to achieve a goal".

According to Jogiyanto (2009:683) revealed that "the system can be defined as a unity consisting of two or more components or subsystems that interact to achieve a goal".

According to Davis (2008:24) it reveals that "the system is a set of things or activities or elements of subsystems that work together or are connected in a certain way so as to form a unity to implement functions to achieve a goal".

From the definition above, it can be concluded that the system is a set of elements that integrate mutually to achieve a common goal.

2.2. The Definition of Information

According to Fauziah and Hedwig (2010:4) revealed that "information results from the activities of data processing are presented in such a way and provide a more meaningful form of an incident and give meaning to its users. Or information can be interpreted as a message that is received and understood its meaning for the recipient of information."

According to Nugroho (2008:17) revealed that "information is one of the elements in the company management."

According to Sutabri (2008:23) It reveals that "information is data that has

been classified or processed or interpreted for use in the decision making process".

From the definition above, it can be concluded that information is data that has been classified in a form that is more meaningful to the recipient used for decision making.

2.3. The Definition of Information Systems

According to Jogianto (2010:58) revealed that "information system is a system in an organization that meets transaction processing needs of an organization and provides certain external parties with the necessary reports".

"Information systems are a set of elements that work together both manually and in computer-based in conducting data processing that is data collection, storage, and processing to produce information and useful for the decision making process. " (Various information system papers in KNSI 2009, Iringvitra Paputungan, 2009)

According to Sutarbi (2008:45) revealed that "information system is a system in an organization that meets the needs of daily transaction management that supports the operational function of a managerial organization with the strategic activities of an organization to be able to provide to certain external parties with the necessary reports".

From the definition above, it can be concluded that the information system is a system in an organization that meets transaction processing needs which support the operational functions of the organization.

2.4. The Definition of E-Government (E-Gov)

E-Government (E-Gov) is the use of information technology that can improve the relationship between government and other parties, it involves automation and computerization of paper-based procedures that will encourage new ways of leadership, new ways of discussing and defining strategies, new ways of business transactions, new ways of listening to citizens and communities, and new ways of organizing and conveying information (Pascual, 2003).

Understanding E-Government can be seen that the essence of E-Government is the application of information and communication technology to serve the citizens, including businessmen with better, faster and easier accompanied by the use of business principles, i.e. efficiency and effectiveness oriented to the satisfaction of citizens and other parties (see Muir and Oppenheim, Kunar, et al, 2007 and Monga, 2008).

According to Syailendra (2008), in the article entitled E-Government Implementation, it states that E-Government is an electronic-based management information system to assist the government in providing information, providing public services and allowing online transactions to other entities / companies or with the community with good quality.

From the definition above, E-Government is a process of government system by utilizing ICT (Information, Communication and Technology) as a tool to facilitate communication and transaction process to the community, business organizations and inter-governmental institutions and their staff. So it can be achieved efficiency, effectiveness, transparency and government responsibilities to the community.

2.5. The Definition of Governance

In the big dictionary of Indonesian language, the word "governance" is interpreted first, as the process, method, act of government. Second, all matters carried out by the State in conducting the affairs of people and the welfare of the State.

Meanwhile, according to Austin Ranney, governance is the process of the government activity, which is the process of making and enforcing the law in a State.

From the definition above, the writer conclude that governance is an activity or process carried out by state institutions or agencies in the service of the community in order to realize the welfare of people.

2.6. Definition of Public

The public definition according to Soekamto is a group that is not unity. Interactions occur indirectly through communication media,

whether communication media in general such as private talks, rumors, or mass communication media such as newspapers, radio, television, and so on.

Meanwhile, according to Major Polak (Sunarjo, 1984:19) public is a number of people who have the same interest in a particular issue. Having the same interest does not mean having the same opinion.

From the definition above, the writer conclude that public is a group of people who have the same interests and interact with each other indirectly through communication media.

2.7. The Definition of Sub-district

According to Berger (2010:20) revealed that "the sub-district position is a regional /city apparatus as a technical implementers who has a specific work area led by a sub-district head (Camat)".

According to Rahardjo (2009:28) revealed that "the Subdistrict is an administrative division of the Indonesian State the level II area which is led by a subdistrict head and divided into several villages".

From the definition above, it can be concluded that the sub-district is a division of administrative regions in Indonesia under a regency or city led by a subdistrict.

2.8. Definition of Website

According to Kadir (2008:376) revealed that "the term website states that the location from which the website domain, while the information found on the web is called the website page (Web page) and to access a website page of the user's browser needs to mention the URL (Uniform Resource Locator), each site has a homepage that is a main page for a site that associates with other web pages."

According to Yuhefizar (2009: 2) revealed that "Website is a method for displaying information on the internet in the form of interactive text, images, sounds, and videos and has the advantage to link one document with other documents (hypertext) that can be accessed by a browser".

According to Zaki, (2009: 1) revealed that "Website is a place that allows a person to

express himself, his hobbies, his knowledge, the products he sells and anything else that can be accommodated by text, writings, images, videos, animations and other multimedia files".

From the definition above, it can be concluded that the website is a collection of web pages located on a single domain or sub domain on an Internet network.

2.9. Previous research

Reflecting on the rapid development of information and communication technology, government service information to the community will be more effective when using an online system. This system will make the service faster and more accurate. In addition, the use of online systems in government systems can realize active communication between governments and communities.

This E-Government application system has previously been created and used, but with different application programs. Some of the data information systems related to public services that have been made are:

Fransisca Mulyono in her study entitled "E-Government Adoption Model in the System Perspective", it describes the implementation model of E-Government which is assessed as a system that shows the relationship between government and society and business, one of the systems is using the website.

Hartono, Dwiarto Utomo, Edy Mulyanto (2010) in a study entitled "Electronic Government for Website-based Governance Empowerment and Village Potential". In this study explained a description of the village potential empowerment. In this study applications used also use the website.

Zainal A. Hasibuan (2007), in his study entitled "Strategic and Tactical Steps for E-Government Development for Youth". In the study discussed the strategic step in the development of E-Government for the expansion and the obstacles faced in the implementation, in the study applications used also use the website.

From a literature review on E-Government study, there are still many who explain about the development of E-Government but do not refer to the design of E-Government

implementation, therefore the results to be realized in this study is a design of E-Government application.

3. Design method

3.1. System Design

The method used in the design of information systems in the government of Sukoharjo subdistrict using waterfall method. The writer assume that this method is very good because it is very small possibilities that there will be errors. It caused that there is nothing to skip when the system is created.

Sutabri (2004:62) said that "Waterfall method is a way of software development in sequential phases. A phase cannot be done before the previous phase has been complete".

Here are the waterfall figures:

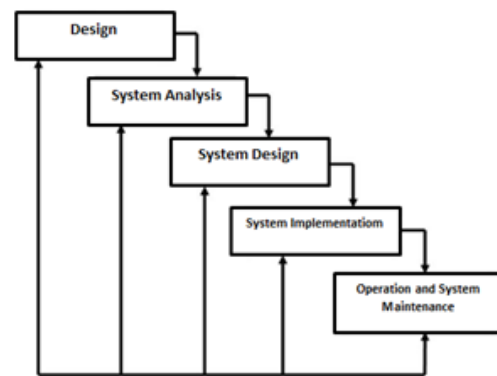


Figure: Waterfall Method

The phases in the waterfall method include:

1. Planning

At this stage is more focus on the interpretation of needs and diagnosis of problems by defining the goals and objectives of the system to be built.

2. System Analysis

In this stage is conducted analysis of the existing system with the method used is the method of interviews with related parties and observe the condition of the village that becomes the scope of the study. In this stage include: determining the object, studying the organization, analyzing the output requirements, analyzing the input

requirements, evaluating system effectiveness.

3. System Design

In the system design is based on the requirements and problems encountered in the research object. In this stage includes database designing, user interface planning, hardware requirements, network designing, software requirements.

4. System Implementation

After the requirement, analysis, and design stage, then the whole system is ready to be implemented. In the stage of implementation, there are several tasks that are implemented including the design in components, source code, script, executable and so on and then refining the architecture and integrate components (compile and link into one or more executables) for the interrogation and testing system. After the system design is created, then implemented by creating programs and testing programs.

5. System Operation and Maintenance

At this stage, training of users and evaluation of the running system is carried out, if there are deficiencies or errors, improvements and maintenance are held.

Design analysis

4.1. Context Diagram

It is an outline of the system in an environment with external entities. The circle describes the entire process in a system that has been designed.



Figure 4.1. Context Diagram

4.2. DFD

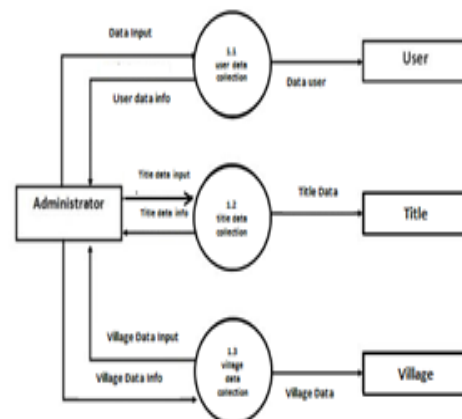
Data Flow Diagram (DFD) is a diagram that uses notations to describe the flow from the system data, whose use is very helpful to understand the system logically, structured and clear.

4.2.1 DFD Level 0



Figure 4.2.1 DFD Level 0

4.2.2. DFD Level 1 Data Collection Process



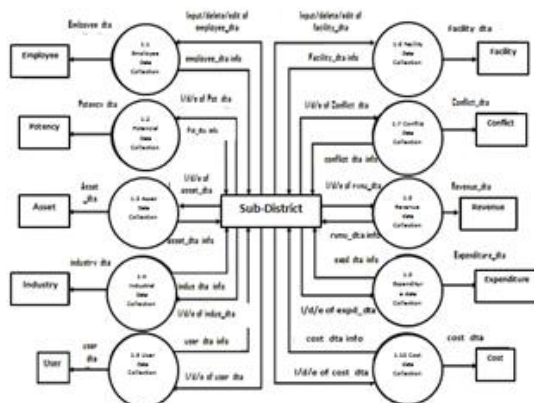


Figure 4.2.2. DFD Level 1 Data Collecting Process



Figure 4.3. ERD of Database Design Adiluwih Sub-district

4.2.3. DFD Level 1 Searching Process



Figure 4.2.3. DFD Level 1, Searching Process

4.2.4. DFD Level 1 Reporting Process



Figure 4.2.4. DFD Level 1 Reporting Process

4.3. ERD

ERD is a model for explaining the relationship between the data in the database based on data objects that have relationships between connections.

4.4. Implementation

4.4.1. Face to face implementation



Figure 4.4.1. Admin Login

4.4.2. Home Page Implementation



Figure 4.4.2. Home Page Implementation

5. Conclusion and Suggestion

5.1 Conclusion

Information and communication technology was one of technology that was developing very rapidly. The rapid development of ICT will opened up opportunities and challenges to create, to access, to process, and to utilize information precisely and accurately. From the design, implementation, test system conducted, it can be concluded several things:

1. E-government design in Sukoharjo Sub-district used the Waterfall Method.
2. Very large, because after the existence of E-Government in Sukoharjo Sub-district, the information to the public made up to date.
3. Make it easy to get information without having to come to the subdistrict office.

5.2 Suggestions

With the existence of e-Government, it was expected to become one of the new breakthrough alternatives in providing better public services as well as being the main information resource for the government in the context of providing strategic information. Therefore, there were several suggestions for adding value and benefits to this study, namely:

1. Training or socialization should be conducted, because the level of public knowledge was still low.
2. It needed to continuous supervision because it could be the management system will changed become traditional again
3. It needed to update information everyday because of the movement of information running rapidly.
4. It needed to be evaluated continuously so that it was known which parts were not running optimally.

Acknowledgement

The authors acknowledge Ho Chi Minh City Open University, Vietnam, for helping this research.

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