

Application of E-Government Management System in Improving Village Capacity Service to The Community to Support Industrial Revolution 4.0

D Maharani^{1*}

¹ Departement Administratif Sciences, Universitas Majalengka, Majalengka, Indonesia

*dewimaharani212@gmail.com

Abstract. In the face of the industrial revolution 4.0, the village government needs to review the governance system in facing the digital era to increase the capacity of the village government to the community. Today information systems are very easy to reach by utilizing technology as a means of providing services to the community. The main thing is to provide maximum service and make it easier for the community to fulfill their daily needs. Increasing the capacity of human resources in the village government in managing government systems needs to be improved and adjusted to the development of the times in line with the era of village autonomy in accordance with Undang-undang number 06 of 2014 concerning villages. Weak capacity of human resources in managing technology-based information systems is considered to be a major factor in the failure of the village government to provide services that lead to poor development in the village. This study used qualitative research methods. The unit of analysis of this research is the government of Sukamukti Village, Cikijing District, Majalengka Regency. This research was conducted for 3 years (in 2017, 2018, 2019). Based on the research findings in the last four months in the first year of the study, Sukamukti Village government showed good performance in the administration of village governance in the era of village autonomy. The village government is able to carry out village development planning, village administration, and village financial management properly. However, the human resources of the village government face a quite serious problem, namely the lack of village officials who are able to create a technology-based village government management system. For this reason, the research team conducted a FGD to design an e-government based government system as a means of village government in organizing an effective and efficient governance system. Furthermore, as the main suggestion in this study submitted to the village government is to design regulations that govern technology-based public service systems. The regulation contains one of them is to get people used to the internet to get various information relating to village government services.

1. Introduction

Utilization of e-government as a step in implementing a technology-based government system provides benefits especially facilitating services to the community [1]. The emergence of information and communication technology has been able to improve government performance, especially in the public service sector [2]. If the technology-based government system continues to be improved the participation and role of the community in the use of government services will increase [3].

Facing the era of the industrial revolution 4.0 various elements of the nation should prepare themselves for greater challenges. The main thing is in the development of science and technology that has now



entered into every joint of human life. Enhancing technology-based information management systems is an effort to provide easy access to services for the community. The holding of good governance is a prerequisite for every government to realize the aspirations of the people and achieve the goals and ideals of the nation and state [4]. One way to go towards good governance is by implementing a technology-based governance system or called e-government. E-government according to the World Bank that e-government is a system that has a reference that is implemented by government agencies information technology (such as Wide Area Networks, the Internet, and mobile computing) that has the ability to change relations with citizens, businesses, and other fields of government [5]. The importance of e-government was stated by Prasojo et.al., there are three factors, namely electronic communication between the public sector and the community providing offers for both parties for direct participation and interaction; Cyber space in public services provides convenience and removes the chain of bureaucratic structures and classic processes of service that distresses the public, and e-government can offer information at the local level [6]. The types of e-government services are Government-to-Citizen (G2C), Government-to-Business (G2B), Government-to-Employee (G2E), and Government-to-Government (G2G) [7].

The e-government implementation policy is carried out by optimizing the use of information technology advancements to eliminate organizational and bureaucratic barriers [8]. The implementation of e-government for public services in the scope of regional governments has the hope that it will produce faster, better, more effective and more efficient public services [9]. In implementing e-government for public services, the obstacle often faced is not only the availability of technology and operational support funds, but also involves various complex managerial issues [10]. Al Gore and Tony Blair state that the benefits of e-Government are (1) Improving the performance of a government service to stakeholders, (2) Increasing transparency, control and accountability, (3) Reducing administrative costs, relations and interactions, (4) Providing opportunities to obtain new sources of income, (5) Creating an up-to-date community environment, (6) Empowering people and other parties who take part in making public policy equally and democratically [11].

Evaluations for the ranking of Indonesian e-government (PeGI) use the five dimensions reviewed, namely policy, institutional, infrastructure, application, and planning. Each dimension has the same weight in the assessment because they are all considered important, interrelated, and mutually supportive of one another [12].

2. Method

This study uses qualitative research with a case study approach. According to Sugiyono, qualitative research is research that produces and processes data that is descriptive in nature, such as interview transcriptions, field notes, images, video footage, and others [13]. In qualitative descriptive research it is necessary to emphasize the importance of closeness to people and research situations, so that researchers gain a clear understanding of reality and real life conditions [14]. While the data collection techniques used are systematic field observations in social settings and in-depth interviews to obtain information accurately and are assumed to master this research material. The selection of a qualitative approach to address the proposed problem, more emphasized is how to understand the effectiveness of the implementation of e-government in Sukasari Village Office, Cikijing District, Majalengka Regency. Furthermore in this study to reveal and understand the obstacles experienced in implementing e-government in Sukasari Village Office, Cikijing District, Majalengka Regency.

3. Result and Discussion

3.1 Present condition

Based on the results of the study, the facilities provided are still limited to the use of the media to convey the roles and tasks related to the main tasks and functions that exist in the Sukasari village government. In addition, there is also information about government activities. that the information facilities developed by the Sukasari village government are still very limited, even inadequate and not yet suitable to be used as reference information for the community. This is due to information. So far, the Sukasari

Village Government still relies on information systems that are given from the central government because the Sukasari village website is still based on the Cikijing District website. This has an impact on meeting the needs of the moment not yet fully meeting the makeshift needs. The central administration information system includes the Regional Budget and Expenditure Budget Information System, the Regional Tax Assessment Arrangement Information System, the Salary Information System, where the information system is still desktop-based and has not been used massively in various SKPDs within the Government Majalengka Regency. The existing information system is still on the website of the local government.

3.2 Elements of Human Resources

One important factor in the implementation of e-government implementation in Sukasari Village is the availability of human resources. The existence of suitable human resources that can meet the needs of the implementation and implementation of e-government in Sukasari Village is not negotiable. The availability of adequate human resources will encourage the development and implementation of e-government, on the other hand if the available human resources do not meet the desired competencies this will hamper the implementation of e-government. If examined further, it is found in various cases that the implementation and implementation of e-government sometimes becomes an obstacle due to the unavailability of information technology technical human resources who can run and manage e-government. Based on the explanation, the readiness of human resources, especially in the field of IT should be a priority in the implementation of e-government in Sukasari Village. Based on the results of the survey and FGD, it was found that overall the Sukasari Village Government only had 4 people who had a computer and information system background. This shows that in terms of the availability of resources, this is very inadequate, given the need for a fairly large implementation of government. On the other hand, there are often multiple tasks between employees causing the implementation of the system to be constrained. This condition is caused by the number of civil servants not going straight with the availability and completion of existing work. There are also other obstacles, namely the existing employees are not equipped with an understanding of information technology, which found that they are very minimal in getting training related to information technology.

Based on the above explanation, overall it looks as follows: 1) Mastery of information technology is still very low in the Sukasari Village Government environment. This is evidenced by the use of computers which are mostly intended only as typewriters and only fulfill the need for making reports and correspondence, 2) Employees within the Sukasari Village Government are not equipped with technical information technology training. This has an impact on the management of information systems that are provided by the center are not managed optimally, 3) The information technology operators are also not equipped with expertise in performing maintenance and simple improvements to existing applications and computers. The result of this is that if there is a disruption to the application and the existing computer, the application and the computer is abandoned, so that a new procurement is carried out, 4) There are HR people who do not understand the use of information technology. This can be an obstacle in the implementation of e-government in Sukasari Village, and 5) Most of the human resources do not have human resources that meet the competencies in the field of information technology. This has an impact on the process of implementing information technology that is not running optimally. Based on the explanation above, if these constraints are not anticipated, in the future there will be a threat to the Sukasari Village Government. The intention of the central government to the provincial government in implementing e-government, can cause its own problems for Sukasari Village Government, where there are objectives and efforts to develop more effective and integrated government services. This causes the Sukasari Village Government to develop human resources who have expertise and capability in this regard. Therefore, if the existing human resources in the Sukasari Village Government lack understanding and mastering information technology, it will have an impact on the backwardness of the Sukasari Village government compared to other villages. On the other hand, management of government systems based on information technology, will have an impact on the

presence of applications / information systems on a massive scale. Therefore, this also has an impact on the presence of human resources who have the ability to manage the application / information system.

3.3 Information System Element (Software Application Package)

Basically one of the aspects addressed in the implementation of e-government is the availability of information systems that can support the activities and services carried out by the Government of Sukasari Village. The presence of information systems is intended to manage data and information owned by the government so that the development of information systems is carried out in order to obtain more effective and efficient services in the bureaucratic process. Referring to this understanding, the presence of information systems in Sukasari Village Government aims to support the bureaucratic process optimally. On the other hand how the bureaucratic process can utilize the potential of information technology optimally to support the smooth functioning and services of the Sukasari Village Government.

The constraints encountered related to the application of the Sukasari Village Government information system, are as follows 1) In general, the existing information system applications are still desktop-based, 2) The existing applications have not been integrated and cannot supply other needs, where the applications are more placed in the framework of meeting the needs of the department and meeting the needs of the province and the center, but has not met the needs, 3) the application of the available information system is a gift from the center. The obstacle faced is that these applications are generally not in accordance with the conditions and problems that exist in each, 4) Information system applications provided from the center are not accompanied by documentation of program development, making it difficult for the Sukasari Village Government to modify the program based on their needs, 5) In general, applications that are used in the Sukasari Village Government environment still use a paid operating system (OS), making it difficult to develop, 6) As a district that has enormous natural resources and human resources, Sukasari Village is not yet supported by the availability of a database that can be the basis of information for all employees and other stakeholders, 7) Given the broad geographical conditions, a service that allows data and information can be obtained by stakeholders. So far, the dissemination of data and information is still manual and conventional. The impact caused is often the data and information is too late and even requires a long process.

3.4 Elements of Infrastructure

Information technology infrastructure owned by the Sukasari Village Government is considered to be quite good. This can be seen from the availability of computers that have been connected to the local network and the Internet as well as other supporting equipment such as printers and scanners that are used to support the implementation of the duties and responsibilities of each section in all employees in Sukasari Village. Based on the results of visits and field observations made, there is already a local computer network or local area network (LAN), intranet network, and internet network that can help the creation of e-government in Sukasari Village that is integrated with the ability to share data and information. The existence of computers, networks, and other supporting equipment has shown that the supporting infrastructure has met the standards for implementing e-government in Sukasari Village.

4. Conclusion

Some conclusions are as follows: 1. Sukasari Village Government has implemented e-government as mandated by the Presidential Instruction in its government environment. However, the application in the field is not very satisfying. However, the Sukasari Village Government is still "half-hearted" in implementing this Presidential Instruction, because it has never carried out a good e-government development plan. 2. Sukasari Village Government is "not serious" in supporting the implementation of e-government governance, human resource development, infrastructure, and budget are still in the form of promises and hopes. 3. The people who are targeted by the implementation of e-government in Sukasari Village have not been touched at all, especially in supporting the quality of services in each SKPD in Sukasari Village. Based on the above conclusions, it is necessary to have a few suggestions to

support the implementation of e-government in every employee in supporting services to the community, namely: 1. There is a need to revitalize e-government in Sukasari Village Government. Some solutions that according to the researchers must be done by Sukasari Village Government are that synchronization and synergy of development targets are needed in the overall utilization of information and communication technology (e-government programs). Implemented in the form of the creation of the Master Guidelines for implementation or master plan. 2. Increasing access and reach of IT infrastructure for all groups and e-government funding allocations that need to be improved and adjusted to the stages that have been achieved. Establish only a few selected government applications that are used to realize successful implementation as a development and development priority. So that efficiency and effectiveness occur in giving.

References

- [1] Yaqoob Dur Mohammed Al-Bulushi 'The Effects Of Leadership Roles On E-Government Performance In Oman by Yaqoob Dur Mohammed Al-Bulushi Copyright 2017 A Dissertation Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Management in Organizational Leadership with', *A Dissertation Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Management in Organizational Leadership with a Specialization in Information Systems and Technology*. Available at: <https://eric.ed.gov/?q=APPLICATION+OF+E+GOVERNMENT&id=ED575605>. 2017.
- [2] Mensah, I. K. 'Factors Influencing the Intention of University Students to Adopt and Use E-Government Services: An Empirical Evidence in China', (86). doi: 10.1177/2158244019855823. 2019.
- [3] Chung, H. and Lee, G. 'Policy and barriers related to implementing adult e-learning in Taiwan', *Australian Journal of Adult Learning*, 54(3). Available at: <https://files.eric.ed.gov/fulltext/EJ1046863.pdf>. 2014.
- [4] Heryana Toni. Pengaruh Penerapan E-Government Terhadap Pelaksanaan Tata Kelola Pemerintah Di Pemerintah Kabupaten Cianjur. *Jurnal Riset Akuntansi Dan Keuangan*, 1 (1), 2013, 38-49. 2013
- [5] Indrajid, Richardus Eko.. *Electronic Government (Strategi Pembangunan dan Pengembangan Sistem Pelayanan Publik Berbasis Teknologi Digital)*. Yogyakarta: Penerbit ANDIerintah Di Pemerintah Kabupaten Cianjur. *Jurnal Riset Akuntansi Dan Keuangan*, 1 (1), 2013, 38-49. 2005.
- [6] Rachman E S & Noviyanto B. Pemanfaatan E-Government Pada Desa Wonokarto Untuk Meningkatkan Akurasi Dan Informasi Potensi Desa. *Jurnal TAM (Technology Acceptance Model) Volume 8, No 1, Juli 2017*. Hal. 45-50. 2017.
- [7] Indrajit, Richardus Eko. *E-Government in action*. Yogyakarta: Andi Offset. 2004
- [8] Kurniasih D. Penerapan E-Government dalam Sistem Informasi Manajemen Kepegawaian (SIMPEG) Di Provinsi Jawa Barat. *Jurnal Ilmu Pemerintahan Volume 2 No. 4 Juli-Desember 2008*.
- [9] Juliarso A. Analisis Implementasi E-Government Dalam Meningkatkan Kinerja Pelayanan Publik Pada Pemerintah Daerah Kabupaten Ciamis. *Jurnal Ilmu Administrasi (ISSN 1829-5762) Vol.10 No.1 Januari 2019*.
- [10] Dwiyanto, A. *Mewujudkan Good Governance: Melalui Pelayanan Publik*. Yogyakarta : Gadjah Mada University Press. 2006.
- [11] Indrajit, R. E. *Electronic Government: Strategi Pembangunan dan Pengembangan Sistem Pelayanan Publik Berbasis Teknologi Digital*. Yogyakarta. 2002.
- [12] Direktorat E-Government Direktorat Jenderal Aplikasi Informatika, Kementerian Komunikasi dan Informatika RI (2012).
- [13] Sugiyono. *Memahami Penelitian Kualitatif*. Bandung: Alfabeta. 2005
- [14] Sugiyono. *Memahami Penelitian Kualitatif*. Bandung: Alfabeta. 2005