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Smart government policy implementation for smart city concept realization

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***Abstract*---**The term "smart city" refers to a concept developed to manage urban processes. This system is connected to the information systems of local governments, schools, campuses, transit systems, hospitals, businesses, commerce, power generation, water supply networks, law enforcement, job openings, and other community services. As part of the smart city idea, the Semarang municipal government is committed to establishing an intelligent government. The significance of smart government services based on open data platforms is to promote integrated and transparent public services. As a result, this study will analyze the application of smart government policies in governance in Salatiga City to create a smart city. This study employs a qualitative method with a descriptive approach. According to the study's findings, smart government is a concept that continues the e-Government program. This new concept has been refined following technology and innovation to achieve better government performance, where public services are centralized and integrated into the smart government. To reach a smart city in Salatiga City, Smart Government must be based on three essential elements: support, capacity, and value.

Keywords---Smart Government, Smart City, Public Service, e-Government

A. Introduction

The rapid development of Information and Communication Technology (ICT) and the overall development of global information infrastructure have altered the

patterns and procedures for trade and government commercial activities (Insani, 2017). This circumstance is beneficial to the advancement of ICT. In the regional context, this development has significantly benefited national progress and boosted national competitiveness (Purnomowati, 2014). Meanwhile, in the global setting, countries are constantly upgrading and preparing themselves to become a digital community ready to tackle diverse challenges and changes as quickly as feasible (Yudatama et al., 2013).

ICT now plays an essential role in transforming the world's people's lives into an information society. ICT is now also incarnated as a primary need in the life of modern society, such as electricity, water, and roads (Respaty, 2014). In addition, ICT also plays a role as a resource for human production and consumption, as well as a supporting tool and enabler in the implementation of daily activities, whether it is government, industry, organization, and society (Miftah, 2014).

The development of good governance toward the use of information technology should be followed by improving the quality of information technology-based public services because if this is not done, the government will struggle to meet the needs of the public in terms of services that want faster services (Simarmata et al., 2020). To meet the challenges of information technology growth, constructing a "smart" government system is a non-negotiable requirement to provide higher-quality public services (Suhendra & Ginting, 2018). According to Darmi (2016), one of the government's initiatives for implementing quality services is to employ sound governance principles in administering the bureaucracy.

Developing the smart city concept is one of the solutions to technical issues. A smart city is a concept of the development and use of information and communication technology (ICT) in processing, improving, connecting, and controlling various resources contained in the city to be more effective by optimizing information and digital technology to improve people's welfare and happiness, as well as improving government services so that costs, time, and energy can be reduced (Hasibuan & Sulaiman, 2019; Wanto, 2017). According to Utomp and Hariadi (2016), a smart city is a city concept that can optimize human resources, social capital, and current technology infrastructure to generate a sustainable economy and good quality of life through public participation-based government.

Smart government is one of the dimensions of a smart city. Several scholars throughout the world define smart government. Mellouli et al. (2014) decided to describe the smart government as the government's widespread use of technology to carry out government functions. According to Harsh and Ichalkaranje (2015), the smart government utilizes the power of "data" to improve public services, engage citizens, and develop and implement policy and solutions for the benefit of society. This remark supports Rubel's (2011) opinion that smart government is a smart transformation of government that includes public involvement, information transparency, and service improvement.

Smart government is a creative blend of new technologies and public-sector advances. Smart government, in particular, is a continuous effort rather than a

specific goal, aided by a variety of new technologies (e.g., big data, open government data, social networks, blogs, Simple Syndication (RSS), web design and programs, mobile government, smartphone applications, cloud computing, and sensors (Anthopoulos & Reddick, 2016)." Garcia et al. (2014) further stressed that smart government is a smart source of public services in smart cities, city administration, and public involvement. Scholl and Scholl (2014) define smart government as smart city government, in which local governments adopt strategies for smart regional development with the participation of stakeholders. As a result, smart government is a source of smart public services involving city management and public participation.

This smart government concept has basic principles that are used as a reference in implementing the Smart City concept: 1. Collaborate and involve all levels of society 2. Develop operations to be more efficient 3. Improve organizational management, human resources, and infrastructure 4. Create a publicly accessible database system 5. Process up-to-date data information (real-time). 6. Using the latest methods. 7. There is coordination between stakeholders (Annisah, 2017).

Salatiga City, one of Central Java's cities, has implemented Smart Government in its government activities. However, the infrastructure for implementing an intelligent government is still lacking. Websites that are under the authority of the Salatiga City Government are still considered to be of very poor quality. The Salatiga City website page still contains information from previous years and is not regularly updated. Salatiga City is ranked 33 out of 35 regencies/cities in Central Java in terms of public information content. Compared to neighboring areas with Salatiga City, such as Boyolali Regency, which is ranked 4th or good enough quality, and Semarang Regency is ranked 21st, although the quality is still lacking.

B. Method

The author employs a qualitative descriptive approach. Using this method, the writer attempts to describe, analyze, and construct meaning regarding existent occurrences (Sugiyono, 2011). Meanwhile, Hermawan (2019) defines qualitative research as a study conducted in real-life settings to investigate and comprehend phenomena, to determine what happened, why it happened, and how it happened.

The descriptive approach can be defined as a method of investigating problems by displaying a description of the current status of the subject or object of research, such as persons, institutions, groups, and communities, based on visible facts and so on (Nawawi, 2015). Meanwhile, according to Nazir (2013), a descriptive approach is a way to examine the current state of a group of people, an object, a set of conditions, a system of ideas, or a class of events. This descriptive research aims to create a systematic, factual, and accurate description, image, or painting of the facts, qualities, and relationships between the phenomena under consideration.

Data gathering methods are based on literature study; that is, data collection methods are based on various kinds of literature such as books, periodicals, journals, and previous research reports. It is intended that by conducting a literature review, the author will be able to learn more about the research procedures that will be used and that the author's research will not be duplicated. According to Nazir (2013), a literature review allows researchers to use all the material and ideas relevant to their research.

C. Results and Discussion

Smart Government Concept

Smart government is one of the fundamental requirements for achieving a Smart City. The smart government generally refers to the effective implementation of ICT in government-related public services. Meanwhile, Smart City covers health care, transportation, education, and other services in addition to government administration (Darmawan, 2018).

The concept of combining solutions for administrative service problems in society with technology has been a hot topic of discussion worldwide for a long time. It also prompted the emergence of the term e-government in the past. At that time, e-government focused on initiatives so that technology could be used to improve the quality and effectiveness of public services. Then sometime after, the implementation of e-government began to be seen with real-time and faster services in government agencies. Unfortunately, the weakness of the e-government concept is that the services are exclusive, meaning that they are still separate for each service and agency (Muliawaty & Hendryawan, 2020).

An improved version named Smart Government emerged from the current e-government basis. Public services are delivered centrally in Smart Government, and the service system is integrated. As a result, the Smart Government system can efficiently support and assure convenient access to services. Smart government is also a concept that is a continuation of the e-Government program, where this new concept has been further refined following the use of technology and innovation to achieve better government performance (Atthahara, 2018). Various solutions drove the emergence of E-Government to administrative problems in public services by utilizing various types of technology. E-Government is more focused on an initiative where technology is used to improve the quality of public services. After being implemented, the concept of E-Government has proven to provide tangible benefits through the various facilities offered. However, these services are still exclusive and separate from each service. To update this concept, a new solution was appointed, namely Smart Government, where all services will be centralized and integrated, thus offering various facilities that are even better (Schedler, 2018). According to Wyld (2010), several aspects must exist when e-government is implemented, including:

1. Universal Connectivity means that people must have an accessible internet connection and access.
2. Open access, namely the built e-government system, must be available to the public and non-discriminatory where all people can use it. Including

here, the city government must provide services so that all people can access the internet, for example, giving internet access rooms.
3. Reliability, namely, e-government services for the community, must function in a balanced and two-way manner because it must be able to support the implementation of the roles of both sides, namely the government and the community.
4. Interoperability and User Choice, i.e., the user (community) must be easy to operate the system and must be able to move from one platform to another e-government platform quickly.
5. Security, namely user data (the public), must be guaranteed security by the government.
6. Privacy, namely, the public has the right to protect the use of data. The use of public data must be straightforward, and the government must ensure the security of the privacy of their data.
7. Economic value, namely the e-government system, must save government spending, for example, cutting bureaucracy and paperless, which will ultimately benefit the community and the government.
8. Sustainability, namely the implemented e-government system, must be able to initiate energy efficiency and reduce ecological impacts; for example, e-government promotes a paperless culture in the bureaucratic system.

In the current era, where the use of Big Data and the Internet of Things is becoming a rapidly developing technology, the term smart city is increasingly becoming a hot topic of conversation because it is said to be able to solve various problems that occur in urban areas. Still, it can also be a catalyst in the development of a metropolitan area city. Smart City is an intelligent use of computing technology to create conditions where infrastructure components and city services are better. These components can include education, health, transportation, and so on. In the application of smart cities, it is closely related to Big Data and the Internet of Things (IoT) (Rathore et al., 2016). Big Data is a term to describe a large amount of data that is then analyzed to create predictions of the state of an area. At the same time, the Internet of Things is an internet system connected to the real world, such as using sensors on various devices (Samsugi et al., 2021). Countries worldwide have started to apply the concept of smart cities according to their culture and the problems they face. Indonesia has also begun implementing the smart city concept that provides solutions to various issues. For example, Jakarta Smart City, the implementation of smart cities in Bandung and Surabaya. The broad concept of a smart city makes it have different focuses for its application, such as in the public service sector, monitoring or monitoring, depending on the culture and problems faced by each region (Mohanty et al., 2016).

The smart city concept's purpose is to increase capabilities and provide solutions to every problem by optimizing the use of resources, services that can be obtained at any time, and good security. In addition, applying this concept also offers a good level of efficiency and effectiveness in controlling and supervising government performance in improving the quality of life and city development so that it can survive and develop sustainably (Sawtri, 2019). Economic transactions in each region can be collected into 'Big Data' for future use. The collection of transaction data can be done through credit card transactions, online stores, or

physical store transactions. Analyzing the data can be used as a reference for predicting people's consumption behavior and regional economic growth in the future. Some critical factors to be considered by an urban area in the application of the smart city concept are:

1. Sensing, namely, recognizing the problem at hand.
2. Understanding, namely, understanding the conditions of the problem.
3. Controlling, namely managing existing resources to be utilized as much as possible in achieving optimal community services.

In some practices in Indonesia to date, Smart Government has a different name and system integration for each region. However, the concept brought is the same, namely the ease of public services and licensing. For example, the Surabaya City Government and Sleman Regency, through a machine called e-Kios. The e-Kios system is a public service kiosk that is real-time and one-stop. Through e-Kiosk, the public can apply for all forms of permits and requests for public services without having to move from one government agency to another. As of April 2015, the Mayor of Surabaya, Tri Rismaharini, said there were already 203 e-Kiosks throughout Surabaya.

Aside from the convenience of public services and licensing, another Smart Government concept in Jakarta and Bandung is transparency. Specifically, bringing the community closer to government workers. Complaints to the government and complaints about regional officials can be submitted through an online application. Some cities also integrate Smart Government directly with large Smart City applications. The seriousness of the Bandung City Government in realizing this integration is evidenced by the construction of the Command Center, a control center for all components of Smart City, including Smart Government.

Implementation of Smart Government Policies in an effort towards a smart city in Salatiga City

According to the results of studies and research from the Harvard JFK School of Government cited (Indrajit, 2004), three elements must be possessed in applying digitization in the public sector. Each of these elements is Support, Capacity, and Value. The application of aspects of smart government development in Salatiga City, among others:

1. Support

The first and most crucial element to implementing smart government in Salatiga City is support from the Salatiga City government in implementing competent government in its activities.

a) Political Will

This political will must be supported by the construction of various supporting infrastructures and superstructures to create a conducive environment for developing a smart government, such as the existence of clear laws and government regulations and the assignment of special institutions as the main person in charge. Through Law Number 23 of 2014 concerning Regional

Government, a smart government management institution for the City of Salatiga has now been formed in the form of the Communication and Information Office. The Salatiga City Communication and Information Office is responsible for processing information within the Salatiga City Government. The Department of Communication and Information has been operating since January 2017. However, Salatiga City currently does not have a clear legal umbrella, either in the form of regional regulations or mayoral decisions governing smart government management to support governance in Salatiga City. However, Salatiga City already has a master plan (blueprint) for smart government management which is used to support the implementation and development of smart government. The existence of support for elements of political will as evidence of the government's seriousness in implementing smart government has not been fully demonstrated by the Salatiga City Government. There are no local regulations or mayoral decisions that regulate in detail the implementation and development of smart government in Salatiga City.

b) Socialization

The dissemination of the smart government concept evenly, continuously, consistently, and thoroughly to all bureaucrats in particular and the community in general, is something that must be done to support the implementation of smart government in an area. The Salatiga City Government has socialized the existence of the Salatiga City government's official website through social media such as Facebook, Twitter, and Instagram. Socialization of the website's presence is also carried out through the official OPD letterhead. However, there is currently no direct socialization to bring the community together with the government.

c) Continuity

Continuity shows the sustainability of the implementation of smart government in Salatiga City, which includes planning for the development of smart government in Salatiga City in the future. The development that will be carried out is to focus on integrating all OPD in Salatiga City in one portal so that various information and data dissemination can be coordinated on one server through the Communication and Information Office. The subsequent development is the construction of facilities and infrastructure in the Communication and Information Office building. The Salatiga City Government plans to build facilities to support the implementation of smart government, namely to build a data center in 2018 at the Communication and Information Office. The next direction the Salatiga City Government takes is to develop a smart city. The Salatiga City Government will prepare infrastructure that can support the direction of a smart city, namely building a command center.

2. Capacity

The implementation of smart government is influenced by the existence of an element of ability or empowerment from the local government in realizing the related smart government into a reality. There are three things that the government must at least have, namely financial resources, infrastructure, and human resources (HR).

a) Financial Resources

The availability of financial resources is one of the most important things to support the implementation various smart government initiatives in an area. Financial resources for implementing smart government in Salatiga City come from the Salatiga City Regional Revenue and Expenditure Budget (APBD). For now, there are still many constraints regarding the budget, namely that some of the infrastructure proposed by the Communication and Informatics Office is sometimes crossed out or not approved by the Regional Planning, Research and Development Agency (Bapelitbangda). The budget for the procurement of smart government infrastructure in Salatiga City is still lacking. This is indicated by the absence of a budget for metro class internet financing for city spot needs. The city of Salatiga is still using a Telkom subscription; the base is still a regular corporate subscription. Plans must be metro-based subscriptions for city spot needs. Currently, the new budget is sufficient to finance the budget, whose system is still corporate.

b) Infrastructure

The availability of adequate information technology infrastructure is one of the keys to the success of the smart government in an area. Supporting facilities and infrastructure needed such as internet, servers, computers, and data centers. Currently, the facilities and infrastructure are insufficient to support the implementation of smart government in Salatiga City, as indicated by the lack of facilities in the Communication and Information Office building. The Department of Communication and Information does not yet have a data center. So, there is no place yet to put a set of servers. The Department of Communication and Information does not yet have a command center to support the implementation of smart government. In addition, the Department of Communication and Information does not yet have a computer lab, so there is no place to gather many people with computers in one location.

c) Human Resources (HR)

The availability of human resources with the competencies and expertise needed in implementing smart government is a crucial thing that must be met to achieve the successful implementation of smart government in an area. The Office of Communication and Information Technology still lacks staff who are experts in the field of ICT; the number of staff who have technical competence in ICT (Computer Infrastructure) only consists of 3 personnel; of course, the number is very lacking for OPD who are responsible for managing ICT at the City level. Computer Institutions (Prakom) are still widely spread in several OPDs. This shows that no ICT HR development plan fits the needs of each OPD. There are 86 computer institutions (prakom) in Salatiga City. However, many prakoms do not work according to their expertise; for example, an aide to the mayor who is a prakom but never use ICT, or they do not work according to their expertise to become prakom because they have to serve in the mayor. So, indeed there are many prakom, but the task is not following the expertise. The Department of Communication and Informatics still lacks prakom because there are only 3 people who are responsible for managing city-level smart government. The Department of Communication and Information has requested additional personnel to the BKDiklatda so that other computer personnel can be collected at the Communication and Information Office. Still, so far, this has not been realized.

3. Value

Value is the third key to implementing competent government in Salatiga City's success. The value of benefits obtained by implementing smart government both for the local government of Salatiga City and for people who feel the benefits of implementing smart government.

a) Benefits for the government

The benefits obtained by the Salatiga City Government after the implementation of smart government with the official website of Salatiga City www.salatiga.go.id is, among others, increasing government transparency that can improve services to the community by publishing through the website of the Salatiga City government, which can post news and reports. Finance is faster, cheaper, and with a broader reach. Compared to before, the Salatiga City Government website had to print hundreds of reports; with the website, all reports can be uploaded as pdf files. Downloading has become more accessible, faster, and broader in scope.

b) Benefits for Society

The benefits obtained by the community after the implementation of smart government with the official website of the City of Salatiga www.salatiga.go.id is that it makes it easier for the public to find all information related to the City of Salatiga. Various kinds of data can be accessed quickly, such as news on Salatiga City government activities which are updated almost daily. Through the website, people can get information faster and cheaper. The public can access information online without coming directly to the relevant agencies.

D. Conclusion

Smart government is a term for effectively and efficiently implementing information and communication technology (ICT) in public services. The smart government itself is a renewal of the concept of e-government in the effectiveness of public services where the implementation of e-government is starting to be seen with real-time and faster services in government agencies. The weakness of e-government is that services are still exclusively separate between each service and agency. Smart government is a development of the concept of e-government where public services are carried out centrally; the service system is integrated. The impact is that the system in Smart Government can effectively support and ensure easy access to services.

Smart government, to realize a smart city in the city of Salatiga, especially in the public sector, must have three elements, namely 1) Support, including political will by building various supporting infrastructure and superstructures to create a conducive environment; the existence of socialization of the concept of smart government consistently and comprehensively; and continuity shows the sustainability of smart government implementation. 2) Capacity includes financial resources, where financial availability is one of the most important things to support the implementation of various smart government initiatives; Infrastructure, where the availability of supporting facilities such as internet,

servers, computers, and data centers is critical in implementing smart government; Human Resources, This is the most crucial because without reliable human resources it is impossible for the implementation of smart government to run well. 3) Value includes benefits for the government in the form of increasing transparency and services to the public through online publications; The benefit for the community is that it makes accessing all the necessary information and services more accessible.

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