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E-Participation in Semarang Smart City

Satria Adhi Pradana [a*], Retno Sunu Astuti [b], Tri Yuni Ningsih [c], Teuku Afrizal [d]

[a] *Universitas Diponegoro, Semarang, Central Java, Indonesia*

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ABSTRACT

Era 4.0 in the context of e-government is less relevant for discussing smart cities. Because smart city is not only about public services, but smart city has developed into a means of realizing community participation who are involved in government activities. Semarang Smart City is one of the Smart City products which is quite good and general with the conditions of other cities that apply smart cities as well. Using netnographic methods and literature studies by collecting data, information, research journals, books, and literature from trusted sources in written and digital form that are relevant to this research. In this paper, the author will describe several forms of e-participation in the Semarang City Smart City program. Semarang Smart City has been able to provide open services, a place for community aspirations. By knowing the form of e-participation that is applied in Semarang Smart City, it is hoped that it can provide an overview of other local governments that implement smart city programs to better understand the smart city program, and can realize various participatory and collaborative decision-making that is right on target in order to create a highly respected government. high transparency and accountability.

INTISARI

Era 4.0 konteks *e-government* kurang relevan untuk membahas *smart city*. Dikarenakan *smart city* tidak hanya tentang pelayanan publik, namun *smart city* telah berkembang menjadi alat mewujudkan partisipasi masyarakat yang dilibatkan dalam kegiatan pemerintah. *Semarang Smart City* yang merupakan salah satu produk Kota Cerdas *(Smart City)* yang cukup baik dan general dengan kondisi kota lain yang menerapkan *smart city* juga. Menggunakan metode netnografi dan studi literatur dengan mengumpulkan data, informasi, jurnal penelitian, buku serta literatur dari sumber terpercaya dalam bentuk tertulis maupun digital yang relevan dengan penelitian ini. Dalam tulisan ini penulis akan mendeskripsikan beberapa bentuk *e-partisipasi* pada program *Smart City* Kota Semarang. *Semarang Smart City* telah mampu menyediakan layanan keterbukaan, wadah aspirasi masyarakat. Dengan mengetahui bentuk *e-partisipasi* yang diterapkan dalam *Semarang Smart City* diharapkan dapat memberikan gambaran kepada pemerintah daerah lain yang menerapkan program *smart city* agar lebih memahami program *smart city*, dan dapat mewujudkan berbagai pengambilan keputusan bersifat partisipatif dan kolaboratif yang tepat sasaran agar menciptakan pemerintahan yang menjungjung tinggi transparansi dan akuntabilitas.

∗ Corresponding author. Tel.: +62-823-7539-2255; e-mail: satriaadhipradana2701@gmail.com

1. Introduction

The development of information technology makes e-government not sufficient only in the context of public services. Information and Communication Technology (ICT) is now also able to support citizen participation activities to realize participatory and deliberative policy formulation through the concept of e-participation.

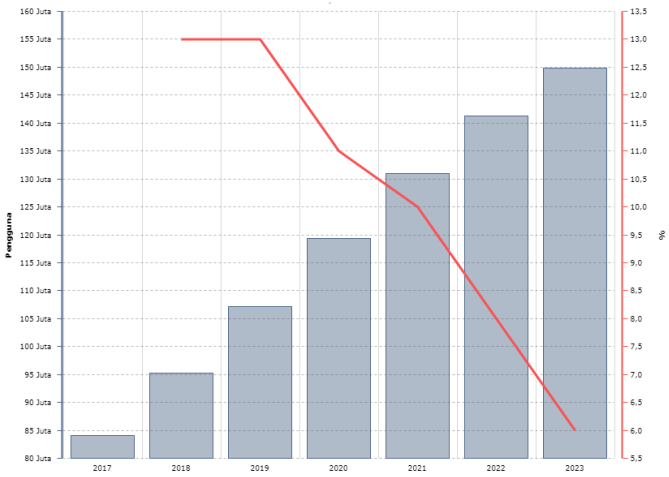

Figure 1 Projection of internet users in Indonesia 2017-2023
Source: Jayani, September 9, 2019

Statistical data for 2019 shows that internet users in Indonesia in 2018 amounted to 95.2 million, growing 13.3% from 2017 of 84 million users. In the following years, internet users in Indonesia will continue to increase with an average growth of 10.2% in the 2018-2023 period. In 2019, the number of internet users in Indonesia is projected to grow by 12.6% compared to 2018, which is 107.2 million users. Meanwhile, in 2023, the number of internet users in Indonesia is projected to reach 150 million users.

As it is known, the government is now optimizing the use of the internet to support public services. The application of ICT in a government environment called e-government aims to maximize government performance. Such as the definition of e-government according to the World Bank (2015, May 19), namely the concept of utilizing information technology by government agencies which aim to transform the relationship between government and citizens, the business sector and other governments for the better.

Information technology acts as a tool that can streamline business processes and cut bureaucracy in terms of public services. Another impact of the use of information technology is that it can lead to new model innovations in government services. The main objectives of e-government are expected to be able to increase the effectiveness and efficiency of public services, transparency, and resolve corruption.

In line with the increasing needs of the community, the application of e-government is no longer relevant only to the issue of service and public service reform. The use of information and information technology (ICT) in government is expected to be able to cut the gap between the public (society) and the government (Ahmed, 2007). In this case, ICT should be able to link communication between the government and the public so as to make the public voice conveyed effectively and efficiently to the government. The development of information technology makes e-government not sufficient only in the context of public services. Information and Communication Technology (ICT) is now also able to support citizen participation activities to realize participatory and deliberative policy formulation through the concept of e-participation.

Nation Democratic Institute (NDI, 2013) explains that:

> This lack of precision had various stakeholders in programs using the same "open government" terminology, yet articulating different examples of successful outcomes, creating a "where you stand depends on where you sit" situation regarding both the application of technologies and the assessment of their efficacy.

The use of the terminology of an open government is unclear, because many research activities, both individuals and groups, often quote the government version of open government itself. In a post by Vrabie & Tîrziu (2016):

> A smart city should be understood far beyond the use of ICT, it being more than just a simple city which makes use of modern digital technologies. We should therefore understand that giving citizens the possibility to participate online in the city's managing activities is an important element of what makes a city smart, not only from a technological point of view, but mainly because this type of city listens and tries to meet the needs and requirements of the individuals that are living in that particular place.

The meaning of the sentence Vrabie & Tîrziu, in the current use of information and communication technology in the era of 4.0, smart cities should exceed expectations of just public services. The public's lack of understanding about this has resulted in no protests in developing countries, especially in Indonesia.

Indonesia has also experienced the same thing, the application of smart cities, smart city research that refers to government regulatory standards. Understanding research, papers on e-government, there are quite a few that start the sentence smart city or smart city will develop the more advanced technology and technological advances will affect the form of e-government itself. It is

no longer relevant when comparing government regulations with technological advances that should be able to fulfill the right of the community to participate in governmental activities (planning and decision-making processes, monitoring programs or policies, complaints if the community finds mistakes)

Semarang Smart City is based on a planning document in the development and implementation of the Semarang Smart City policy for the 2018-2021 period. This smart city management plan is regulated in Semarang Mayor Regulation Number 26 of 2018. In the appendix, it clearly describes the objectives of semarang smart city which utilizes innovative, integrated and sustainable solutions to improve the quality of life of the people in the city of Semarang.

If you look at the BPS data for the year, it is recorded that the total population of Semarang City is recorded. The capital of Central Java Province has an area of 373.7 hectares and a population density of 4,780/ square km. (Kusnandar, 2019). At the same time, people hope to live in a comfortable, safe, healthy, easy, and prosperous environment. So that various special problems will arise in the aspects of public services faced by residents of the city of Semarang.

In connection with these conditions, the Semarang Smart City Master Plan is a guideline for the Semarang City government and stakeholders in implementing the Smart City development for the 2018-2021 period. Semarang Smart City has been successfully implemented based on the principles of integration, effectiveness, efficiency, inclusion, and participation.

Bandung Institute of Technology (ITB) issued a ranking of smart cities in Indonesia in 2019. Big cities that are classified as smart are Semarang, Surabaya, Batam, Bandung, and Tangerang. The city of Semarang again made a proud achievement at the 2019 Goesmart national level award activity which was held in the West Hall of the Bandung Institute of Technology (ITB). A total of nine categories of "Cities Towards Smart" were achieved by the City of Semarang, namely the Smart Economy, Smart Social, Environment rating. Smart, Smart Health, Intelligent Security and Disaster, City Development and Management, Digital Government Readiness, Integration Readiness, and City Top Rating Towards Smart (Antoni, 2019).

As an e-government product that utilizes the internet of things (IoT) to facilitate services to the public. The success achieved by the City of Semarang cannot be separated from the role of the electronic participation. In addition, the use of electronic media for information and communication technology is very important in the realization of such electronic participation. As stated by the Head of the ICT Communication Human Resources Development Division of the Semarang City Information and Communication Service, Mr. Hanry Sugihastomo. It is said that in "Semarang Smart City" it cannot be separated from the role of social media (Wednesday, June 10th 2020: 10.15 AM).

Thus it can be said that the Smart City Program includes several main components, namely humans, technology, and community. This was revealed by the Semarang City Government in 2016 that the City of Semarang used technology as a means of interaction between various administrative systems in the city of Semarang. Therefore it is important to study the successful implementation of the Semarang Smart City program from the point of view of e-participation so that it can be published and studied by other regions.

The success of the Semarang City government in implementing the Semarang Smart City program is inseparable from the support and public participation, especially the people of Semarang City. Public participation that is carried out electronically or through electronic media in the context of government program planning and Semarang City policy formulation then creates new participation, namely e-participation.

E-participation is a concept of public participation that is still developing and is under deeper study among researchers. Every government agency in various countries continues to strive to develop the concept of implementing e-participation as a new innovation within a democratic framework. Although e-participation has a potential value of increasing the quality of participation, studies to understand and deepen e-participation are still lacking, especially in developing countries (Sæbø et al., 2008). Based on my background, as a researcher I would like to see Semarang Smart City from the perspective of analyzing the use of technology (e-participation), providing an understanding of e-participation and its various forms of application in government organizations, especially as the object of my research, namely the application of Semarang Smart City.

2. Research Methods

The author uses the method of netnography and literature study by collecting data, information, research journals, books and literature from trusted sources in written and digital form relevant to this research. The process of identifying communication problems in implementing the Semarang Smart City program uses descriptive qualitative methods.

The focus of this research is the electronic participation of citizens (Public) in the Semarang Smart City program. While the object of research is the digital or non-digital communication media used by the Semarang City Government in implementing the Semarang Smart City public service program to its people (resident residents, tourists and others).

This research was conducted at the Department of Communication and Informatics (DISKOMINFO)

Semarang City and Semarang City with research variables, namely; Stakeholders, namely agencies involved in Semarang Smart City; Participation process, namely activities starting from planning and implementing the Semarang Smart City (community participation, government-community interaction, two-way communication between the community and the government of the Semarang Smart City program); e-Participation tools, namely Semarang Smart City e-participation support equipment.

3. Results and Discussion

3.1 The Position of E-Participation in Holding Semarang Smart City

Looking at the concept of a smart city, Semarang City in general, which is defined as a smart city concept that utilizes information and communication technology, is not much different from other smart cities. The following is the legal basis for Semarang Smart City:

a) Semarang is a smart city based on Presidential Regulation number 98 of 2018 concerning Electronic-Based Government Implementation Systems;
b) Government Regulation No. 18 of 2016 regarding regional apparatus;
c) Presidential Instruction number 3 of 2002 concerning national policies and strategies for e-government development;
d) Regulation of the minister of communication and information technology number 13 of 2016 concerning the results of mapping of regional government affairs in the field of communication and informatics;
e) Regulation of the minister of communication and information technology number 14 of 2016 concerning guidelines for the nomenclature of regional apparatus in the field of communication and information technology; and
f) Memorandum of understanding (MoU) between the ministry of communication and information technology and regional heads in 2017 on the implementation of programs towards 100 smart cities.

By using the reference to e-participation theory, where e-participation is more about discussing electronic communication participation. E-participation is a concept of using information and communication technology (ICT) to facilitate public participation in politics and government (Sæbø et al., 2008). ICT is seen as an effective medium for reaching out to public engagement. The main purpose of e-participation is to increase public participation in participatory, inclusive, collaborative and deliberative decision making through ICT tools. E-participation consists of communication and interaction with government elements, or the existence of public interaction in determining a decision to be taken by the government.

The form of e-participation implementation can be seen in the form of formal or non-formal services (Walsh, 2007). Formal services are generally part of official government activities, are structured and have standardized rules. The concept of e-participation is divided into several dimensions according to Kalampokis explaining e-participation in a domain model consisting of three sub-domains, namely Stakeholders, Participation process, and e-Participation tools (Kalampokis et al., 2008).

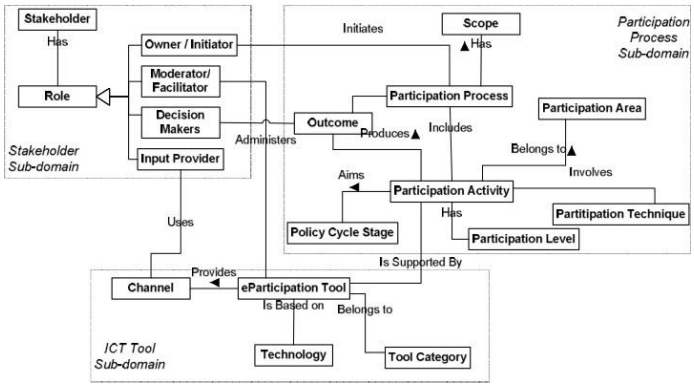

Figure 2 The Kalampokis e-participations concept pattern
Source: (Kalampokis et al., 2008)

In the Kalampokis domain model, the stakeholder subdomain is a dimension that describes the actors or parties involved in e-participation and their respective roles. There are two types of takeholders that exist in e-participation, namely the government and the general public or the public. Government stakeholders include executive, legislative and judicial institutions, which generally have various roles as initiators, supervisors or decision makers. Meanwhile communities or citizens, community organizations, industry, media, and others classified as a public which has a role as a contributor to e-participation.

Subdomain participation process is a dimension that includes public participation activities. This section describes the various forms of participation that are carried out, the scope of participation, the method of implementation, the expected results, the level of participation, and the stages of policy making.

Subdomain e-participation Tools (ICT Tools) are various things related to technological aspects. This process involves participation, stakeholders using channels (e-channels) or certain applications, for example via PC or mobile devices.

Based on the level of participation, the application of e-participation is divided into 3 stages, from passive to active participation by the UNDESA community

(UNDESA, 2014). These stages are as follows:

a) E-information is a stage that opens citizen participation by providing access to information according to requests for data and public information;
b) E-consultation is a step late that me Engaged k 's citizens to contribute to give their views on the formulation of a public policy; and
c) E-decision making is a form of participation that involves more citizens as partners in designing and formulating policies, making decisions, and developing public service products.

3.2 Semarang Smart City E-Participation Service

E- Participation in The Semarang Smart City Program Refers to The Theory Presented by Kalampokis.

3.2.1 E-Participation Service in Semarang Smart City

Several types of e- participation that are developed by the City of Semarang include:

a) Electronic -based information services
This information service is the activity of providing information by the government to the public through information technology media. The information published includes information on government policies, regulations and laws (UU), regional development conditions, licensing requirements, community development programs, and other general information. Making available information can be done in a request for information request (on-demand). The media used in the process of providing information uses internet-based media such as website portals, social media, mobile applications, broadcast SMS (Sanjaya, 2017). One media applications that use web-based Local government of Semarang https://www.semarangkota.go.id/mainmenu/detail/aplikasi on in the web-based application available features information services related to education, health, infrastructure and other -other.

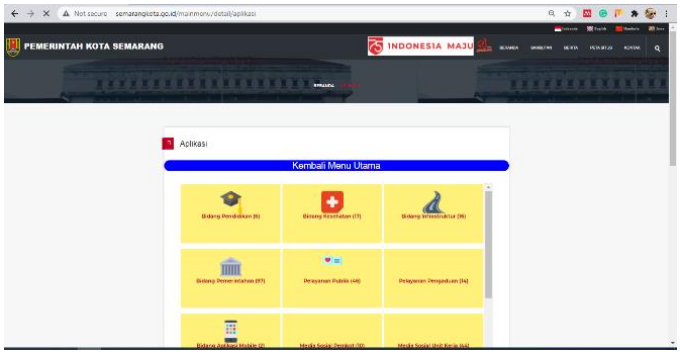

Figure 3 Semarang City Online Information Service Application
Source: (Semarang Smart city, n.d.)

b) Electronic Complaint Service
The existence of the media to convey aspirations and complaints, indirectly the community has contributed to improving weaknesses in government performance. Electronic complaint service media is a form of government service in receiving or accommodating aspirations and complaints from the public through electronic channels and the internet. The Semarang city government provides electronic complaint service features such as Geber Septi (Semarang School Joint Movement to care and respond to bullying) City, Semarang City Great Ambulance, Semarang City BBM, Semarang City PPID, Hendi Report, E-breakfast Application, Trans Semarang, and others. nother.

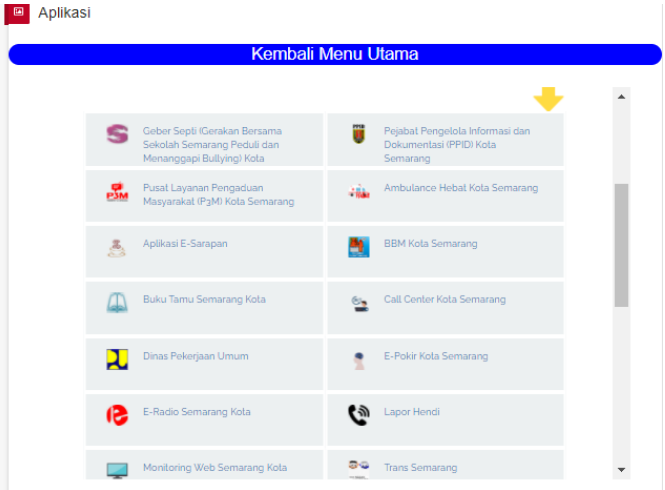

Figure 4 Semarang City Complaint Service
Source: (Semarang Smart city, n.d.)

c) Services E -petition (Petition Electronics)
A petition is an official written request by citizens that is submitted to the ruling authority, namely the government institutions (Simamora, 2018). The proposition was conveyed to convey public dissatisfaction about what should be the government's authority. E-petition is usually developed in a web-based application.
d) E-consultation service (electronic based consultation)
Public consultation is a method that involves the public taking part in the policy formulation process through formal dialogue with the government (Farhan et al, 2007). This public consultation uses information technology so that it can be carried out from anywhere (online). For example, the applications used are email, e-forums, e-polls, video conferencing, and others. In various developing countries, online public consultation has been widely implemented and has become a mainstay in e-democracy applications in

accommodating wider public aspirations (Schulz & Newig, 2015). One of the public consultation service embodied by the Government of Semarang through the use of social media are Soursquare Municipality of Semarang, Semarang government VK, Twitter, Instagram, Youtube and others.

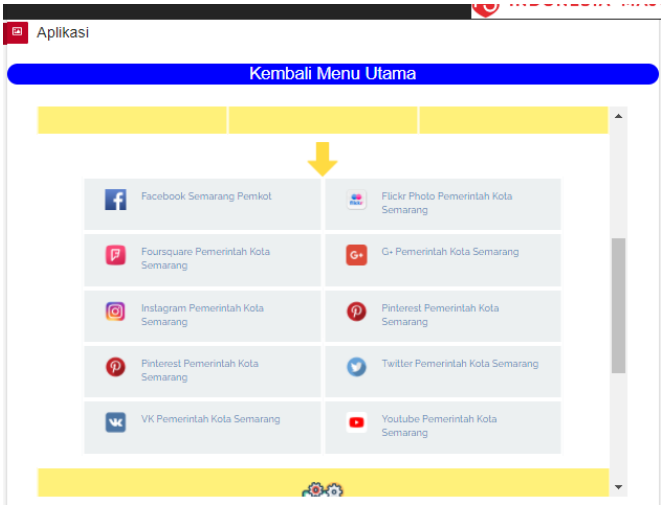

Figure 5 Semarang City Public Consultation Service Media
Source: (Semarang Smart city, n.d.)

e) E- planning services
An example of e-planning implemented in Semarang City is the Electronic Musrenbang (e-musrenbang). Musrenbang is a routine activity carried out in the planning of government work and activities. Musrenbang aims to accommodate ideas from various stakeholders to be included in government work plans and activities for the following year.

3.2.2 Some Examples of Semarang Smart City Application Content

Seeing e-participation is, of course, inseparable from the usefulness of the features provided in the Semarang Smart City applications (ITB, 2019), including:

a) Education Service Application, The service features provided are registrant statistics, distribution of national exam scores, school data, complaints;
b) Application of Health Services, Health service features include information on puskesmas and RSUD, history of medical actions, history of laboratory examinations, history of disease diagnosis, history of drugs, basic health information, payments, complaints;
c) Licensing Service Application, The information provided is an example of preparing a permit document;
d) Complaint Service Application, The services provided by the application are a list of complaints (list of incoming complaints based on time sequence and the handling sector), complaint statistics; and
e) Tourism Service Application, The content provided is: home, top destinations, more destinations, hotels, food, shop & service, public transport, events, tickets and tours.

Figure 6 Facts and Analysis of Semarang Smart City
Source: (ITB, 2019)

Based on the picture above, Semarang Smart City has provided applications to support participation and services, although there are still a number of things that need to be improved. It can be seen from the discussion of e-participation in Semarang Smart City that it looks quite good because it has fulfilled the indicators of e-participation, namely Stakeholders, Participation processes, and e-Participation tools. There are clear stakeholders, namely the Semarang City Government, the Semarang City Information and Communication Office as the technical implementers. The process of community participation is quite good by involving the community directly and being able to carry out two-way communication, namely between the community and the Semarang City Government. Participation media in the form of applications both web and mobile phone versions.

4. Conclusion

Based on the discussion of the description of Semarang Smart City, it can be concluded that e-participation needs to be increased. This is because there are still many regions that implement smart city programs that do not maximize the function of the smart city itself. Past analysis related to smart city which refers to e-government causes less optimal application of smart city. Even though this smart city or smart city should be able to create the openness of public participation, transparency, and value of public trust in the government.

Semarang Smart City is a good example for other local governments in Indonesia that implement a smart city program, have been able to provide services that involve community participation, involve the community, and provide two-way communication between local governments and their communities. Although there is still a need for improvement related to applications and content that the community needs.

There are two things that should be studied by other local governments, namely: first, Smart City in Era 4.0 is no longer relevant to only agency websites that contain profiles, posts of government agency activities. But the real Smart City is able to serve the community, provide two-way communication, transparency. As the author examines Semarang Smart City from the perspective of e-participation, it does not focus on e-government because e-government analysis is less relevant for the analysis of the Smart City program.

The second thing is that any government in implementing the Smart City program must pay attention to the level of e-participation because many local governments misunderstand what a Smart City is. They only understand how to propose a smart city program budget, but they don't really understand the meaning of smart city.

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