

**THE EFFECTIVENESS OF DIGITAL SERVICE POLICIES IN THE
FORM OF ELECTRONIC SIGNATURES AT THE CIVIL POPULATION
AND REGISTRY OFFICE IN SURABAYA CITY**

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ABSTRACT

Electronic signatures are one of the innovations in the improvement program of the Civil Registry and Population Office. Electronic signatures aim to streamline the process of verifying population documents without the need to visit in person and have face-to-face interactions. However, the community still questions the validity regarding the implementation of electronic signatures. The purpose of the study is to identify and analyze aspects that hinder and support, as well as to identify and analyze the Effectiveness of Digital Service Policies in the Form of Electronic Signatures at the Civil Registry and Population Office in Surabaya City. The research method used is descriptive qualitative with an inductive approach. Data collection techniques are carried out through interviews, observations, and documentation. In conducting interviews, the researcher analyzes the level of effectiveness using several indicators such as productivity level, flexibility level, effectiveness level, search for excellent human resources, job satisfaction of human resources, and supporting and inhibiting aspects. The research results indicate that digital services at the Civil Registry and Population Office, in the form of electronic signatures, have been implemented successfully. However, it still requires improvement in some obstacles, including several indicators, such as a lack of education and specific training for employees involved in the implementation of digital service policies, as well as a shortage of skilled human resources in handling network issues and unstable servers. Efforts made to overcome the existing obstacles include involving employees in training or technical guidance and repairing networks and servers experiencing disruptions. The researcher suggests the need for improvement in terms of education and

specific training for employees involved in the implementation of digital service policies. Additionally, there is a need for dedicated human resources with a focus on network and server maintenance. So that if there are obstacles in the implementation of public service policies, they can be addressed promptly.

Keywords: *Effectiveness, Digital Service, Electronic Signatures*

A. INTRODUCTION

The implementation of population administration policies carried out by local governments, either at the regency or city level, through public services related to population documents. The issuance of the *Peraturan Menteri Dalam Negeri Nomor 7 Tahun 2019* concerning Online Population Administration Services can have a positive impact on the community. The development of technology in the field of information is crucial for services in government agencies, especially those provided by the Civil Registry and Population Office in Surabaya City. With the presence of new innovations, it is hoped that they can keep up with the times, such as the transition from conventional work systems to the digital era. The transformation in government agencies is marked by the departure from the traditional government era, which is synonymous with paper-based administration, to electronic government or e-government in the digital era.

Based on that, the people of East Java, especially in the city of Surabaya, who submit requests for population and civil registration data to the Civil Registry and Population Office of Surabaya City, experience a significant annual increase. Therefore, it can be confirmed that every day, the Civil Registry and Population Office of Surabaya City experiences an increase in services from all sub-districts and villages in Surabaya, as well as residents from outside Surabaya who come to request population and civil registration data in the city. For example, there are still many applicant files from the community that are incomplete for electronic signature processes, such as the printing of ID cards, driver's licenses, birth certificates, arrival certificates (*SKPWNl Datang*), and departure certificates (*SKPWNl Pindah*).

Through this innovative service policy, the Civil Registry and Population Office of Surabaya City hopes to improve the quality of population data services to the public. In addition to these innovations, it is also expected to expedite and shorten the time in the process of creating population and civil registration data, thus allowing for quicker completion. For example, in the creation of electronic identity cards (e-KTP) equipped with an electronic chip that can be used to store fingerprint data, signatures, and the owner's photo and biodata. Therefore, the e-ID card has a very high level of accuracy in biometric data.

The Civil Registry and Population Office of Surabaya City have undergone a transformation in service methods, where previously services were conducted manually, and now they have shifted to digital services. That innovation comes from the field of e-government information systems, which initially involved manual population and civil registration data, and has now transitioned to an online-based system. However, in reality, there are still some challenges experienced in processing requests for population and civil registration

data, particularly in the issuance and verification process carried out by the Head of the Civil Registry and Population Office of Surabaya City, which takes a considerable amount of time. This is because of the busy schedule of the Head of the Civil Registry and Population Office of Surabaya City and their absence due to external engagements. Therefore, to minimize issues and provide solutions to the Head of the Civil Registry and Population Office of Surabaya City. Therefore, the Civil Registry and Population Office of Surabaya City launched a service innovation. The service is in the form of Electronic Signatures, which is one of the innovations in digital bureaucracy services.

B. LITERATURE REVIEW

Concept of Effectiveness

In this study, it explains the perspective of organizational effectiveness used, which is the goal perspective, where the measure used is how the organization achieves these goals, including realizing the organization's vision and mission. So, the benchmark for the effectiveness of the Civil Registry and Population Office of Surabaya City includes the level of productivity in processing population and civil registration data requests optimally.

Sharma (2012) provides criteria or measures of organizational effectiveness that involve internal and external organizational factors, including, among others:

- a. Organizational productivity or output
- b. Organizational effectiveness in terms of its success in adapting to changes within and outside the organization
- c. Absence of tension within the organization or barriers to conflict among organizational units.

Public Policy

Policy is a government instrument, not only in the sense of the government that only concerns the state apparatus but also governance that involves the management of public resources. "In essence, policy is a series of decisions or choices of actions that directly regulate the management and distribution of natural, financial, and human resources for the public interest, namely the people, residents, communities, or citizens. Policy is the result of synergy, compromise, or even competition among various ideas, theories, ideologies, and interests that represent the political system of a country. Suharto (2007) explains that public policy has at least three interconnected dimensions, namely:

- a) **Public Policy as an objective**
Public policy ultimately concerns the achievement of public goals. In other words, public policy is a series of government actions designed to achieve specific outcomes expected by the public as constituents of the government.
- b) **Public policy as a legal choice of action**
Choices of action in policy are legal or authoritative because they are made by institutions with legitimacy in the governance system. These decisions bind civil servants to act or direct choices of action or activities, such as preparing draft laws or government regulations for consideration by parliament or allocating budgets to implement specific programs.
- c) **Public policy as a hypothesis**

Policies are created based on theories, models, or hypotheses about cause and effect. Policies always rely on assumptions about behavior. Policies always contain incentives that encourage people to do something. Policies also always include disincentives that discourage people from doing something. Policies must be able to reconcile predictions about the success to be achieved and mechanisms to address possible failures.

Digital Bureaucracy

Bureaucracy is the driving force that operates a state system (Setiyono, 2016). The existence of bureaucracy is crucial for a country. Its essence is as a state instrument to ensure the fulfillment of the needs and rights of the public, which are essential elements for the existence of a state. This aligns with what Hegel said about bureaucracy. According to Yusriadi (2018), bureaucracy is a bridge that connects the state with its society. This perception is based on the fact that bureaucracy itself, philosophically, is formed and used by the community and for the community, with the existence of a social contract (Setiyono, 2016). Therefore, the nature of bureaucracy cannot be separated from the needs and interests of the community as citizens.

Electronic Signature

An Electronic Signature (Digital Signature) is a handwritten signature given a specific writing style of someone's name or other identifying mark written on a document as evidence of identity and intent. The signature acts as a seal (security) through electronic media, serving the same function as a manual signature typically used by people. In essence, the Electronic Signature (Digital Signature) of each document is unique because it is derived from that specific document. Certainly, if the document changes, the Electronic Signature will also change. In the current digital era, a digital signature, or "*tanda tangan digital*" in Indonesian, serves the same function as a manual signature, acting as authentication for a document that can be used as a sign of approval, acknowledgment, and more.

C. RESEARCH METHOD

The research method to be used in this study is the descriptive qualitative research method with an inductive approach. The author employs this type of research to be able to describe, explain, and address the issues occurring in the field. According to Usman (2017), Qualitative Descriptive Research is described in sentences, in line with respondents, as is, and in accordance with the researcher's questions. Furthermore, it is analyzed, and conclusions are drawn.

Research method, according to Priyono (2016), is a way of doing something by carefully using the mind to achieve a goal. However, according to Sugiyono (2017), research method is fundamentally a scientific way to obtain data with specific purposes and uses. Based on various definitions by experts, research method is a scientific or technical approach used to obtain data about a research object with the aim of solving a problem. Generally, there are three types of research methods: Qualitative method, Quantitative method, and Mixed Methods research method.

In that study, the researcher employed a descriptive qualitative method with an inductive approach. According to Sugiyono (2012:1), it is a research method

used to examine natural conditions of the object with the researcher as the key instrument. According to Nazir (2014:43), descriptive method is a technique used to study the status of a group of people, an object, a condition, or an event in the present time.

D. RESULT AND DISCUSSION

Effectiveness of Digital Service Policy in the Form of Electronic Signatures at the Civil Population and Registry Office of Surabaya City.

Effectiveness is one of the crucial factors playing a vital role in an organization, ensuring that the organization's objectives are achieved efficiently and effectively. The organization's goals can be realized when it has skilled and qualified human resources capable of providing optimal contributions and improving overall performance for the organization, employees, and the community. Effectiveness is the ability to carry out tasks, functions, and organizational productivity.

A good bureaucracy is one whose performance is directly related to meeting the needs of the community. In responding to the effectiveness of digital bureaucracy in terms of serving the community, it is essential to understand that the potential for good bureaucratic performance lies in a bureaucracy that opens up opportunities as widely as possible for the community to excel.

Based on the above explanation, it can be understood that what is to be emphasized from the perspective of digital bureaucracy is the effectiveness of implementation in serving the community. Additionally, what aspects may hinder the implementation of digital services at the Civil Registry and Population Office in Surabaya.

a) Work Productivity

The term productivity, according to Sutrisno (2009), refers to the relationship between output (goods or services) and input (labor, materials, money). However, according to Ardana (2012), productivity can be influenced by factors such as education, skills, discipline, mental attitude, work ethics, income level, social security, environment, and working climate. Therefore, it can be concluded that productivity involves the mental attitude and perspective of humans to make something better than before.

Based on the results of interviews with six informants, answers to questions related to the productivity of population data requests at the Civil Registry and Population Office of Surabaya were obtained. In achieving the desired targets, the institution must make various breakthroughs and create public service innovations to obtain and shorten the time in the issuance process of population documents, making it faster to complete. The latest innovation implemented is the electronic signature innovation in the population document validation process. This step is taken to improve services and reduce the accumulation of population document requests from the community, allowing applicants to complete the validation process quickly.

b) The Ability to adapt or flexibility

According to Muhlisah (2016), is the ability to adapt and work more effectively and efficiently in different situations with various individuals or

groups. Flexibility requires a good ability to understand and appreciate different and conflicting opinions on issues, adjust approaches due to changes in situations, and accept changes from the organization gracefully.

Based on the results of interviews with 6 informants, the findings indicate answers to questions related to the level of flexibility among employees of the Civil Registry and Population Office in Surabaya. Employees at the Civil Registry in Surabaya have developed competencies through education and special training in the field of population services, supporting their flexibility. Therefore, the flexibility of Civil Registry employees in providing services is unquestionable. Additionally, the level of flexibility in document validation is quite good, as the document validation by the Head of the Civil Registry can be done anywhere and anytime.

c) Effectiveness Level

According to Beni (2016: 69), effectiveness is the relationship between output and goals or can also be said as a measure of how far the level of output, policies, and procedures of the organization. Effectiveness is also related to the level of success of an operation in the public sector, so an activity can be considered effective if it has a significant impact on the ability to provide services to the community, which is the predetermined target.

Based on the results of interviews with 6 informants, the answers to questions regarding the level of effectiveness of implementing Electronic Signatures that can be accepted by the community in Surabaya are as follows: The community as applicants is quite satisfied. The applicants highly accept this innovation because the time used to process documents is very short. In addition, the community does not need to come to the Civil Registry Office to process population documents; they can do it online from their respective locations.

d) Addition of Human Resources

In a process of adding and searching for the right human resources to specialize in their interconnected fields, three interconnected fields are needed, namely:

1. The ability to integrate various subsystems so that human resources can coordinate accurately and be directed towards a goal and organization effectively and efficiently.
2. The establishment and maintenance of policy guidelines that can support the smooth operation of good work effectiveness, as well as
3. Organization review with good feedback and control.

Based on the results of interviews with 6 informants, the findings regarding the level of addition for excellent human resources in electronic signature services indicate the need for the addition of excellent and efficient human resources, especially those specializing in IT server maintenance directly connected to the center, in the Population and Civil Registration Office of Surabaya City. This is to assist in resolving system errors and network issues directly related to the server. Because if there are server or network issues, it will take quite a long time, impacting the population document services that are almost all done online, such as electronic signatures.

e) Job Satisfaction Level

In an organization, human resources are a valuable and crucial asset. This is because they are the primary actors who can support the success and achievement of an organization's goals. The task of an employee in an organization is to contribute to the achievement of organizational goals and achieve good job performance. Good job satisfaction obtained by employees can benefit the organization. On the contrary, low job satisfaction among employees can have negative effects and can hinder the achievement of organizational goals.

Based on the results of interviews with 6 informants, the findings regarding the level of job satisfaction of human resources at the Population and Civil Registration Office of Surabaya City indicate that the job satisfaction of human resources in the Population and Civil Registration Office is quite high. This is due to the innovation of electronic signatures. As a result, the services related to population documents can be carried out without waiting for the Head of the Population and Civil Registration Office to be present. Thanks to electronic signatures, the process can be done anywhere and anytime.

Factor Inhibiting the Effectiveness of Digital Signature Policy in the Population and Civil Registration Office of Surabaya City

The Population and Civil Registration Office of Surabaya City has made significant progress in public services, including advancements in digital bureaucracy through the innovation of electronic signatures, which are processed online. However, in its implementation, the electronic signature service heavily relies on the stability of the network and the central server. This stability is crucial for the validation process of population documents. So far, the implementation of electronic signatures has been relatively successful, but there are still some challenges, such as issues with internet network disruptions and occasional errors in the central server.

Based on the results of interviews with 6 informants, the findings provide answers to questions related to supporting and inhibiting factors in the implementation of electronic signatures. The increasing number of applicants every day has a significant impact on the electronic signature service. If the network and server are stable, the document issuance process can be promptly executed. However, if the network and server experience disruptions, the service will be affected as well.

E. CLOSING

Based on the research conducted by the researcher, the following conclusions are drawn:

Conclusion

- a) Work Productivity; in achieving the desired targets, the Civil Registration and Population Office of Surabaya City has made various breakthroughs and created innovations in public services to obtain and reduce processing time. The latest innovation implemented is the electronic signature innovation in the process of validating population documents. This step is taken to improve services and reduce the accumulation of population document requests from the public, allowing applicants to complete the validation process quickly.

- b) **Adaptation Ability or Flexibility;** the level of adaptation and flexibility of the employees of the Civil Registration and Population Office of Surabaya City has been supported by competencies through education and special training in the field of population services. Thus, the flexibility of the civil registry employees in providing services is unquestionable. Moreover, the level of flexibility in document validation is quite good because the validation of documents by the Head of the Civil Registry Office can be done anywhere and anytime.
- c) **Effectiveness Level;** the level of effectiveness in the implementation of Electronic Signatures is widely accepted in the community of Surabaya City. The applicants are quite satisfied with the innovation, as the time required to process documents is significantly reduced. Moreover, individuals no longer need to visit the Civil Registration Office in person to handle population documents; they can simply do it online from their respective locations.
- d) **Addition of Human Resources;** there is a need for the addition of skilled and efficient human resources, especially those specialized in maintaining the IT servers directly connected to the central system at the Population and Civil Registration Office of Surabaya City. This is to assist in resolving system errors. When there are issues with the server or network, it takes a considerable amount of time to address them, impacting the services for population documents, which are almost entirely conducted online.
- e) **Job Satisfaction Level;** the job satisfaction level among the human resources at the Population and Civil Registration Office is quite high, thanks to the innovation of electronic signatures. This allows population document services to be carried out without waiting for the Head of the Office to be present. Electronic signatures enable the process to take place anywhere and anytime, eliminating the need for physical presence.
- f) **Obstacle Factors;** the inhibiting factors include issues such as internet network downtimes and central server errors. These problems significantly disrupt the process of creating and validating population documents. Therefore, to address the existing challenges, competent human resources are needed to ensure that the data collection and issuance processes for population documents become more effective and efficient.

Recommendations

Based on the above research findings, several recommendations are suggested:

- a) There is a need for supporting innovations to ensure that the productivity levels can reach the desired targets.
- b) Human resources with a high level of flexibility are essential to effectively achieve the set targets.
- c) Implementing an effective program is crucial to ensure that the time used by applicants is promptly resolved.
- d) Specialized human resources focused on network and server maintenance are necessary. This ensures that any challenges in the implementation of public service policies can be promptly addressed.
- e) There should be an emphasis on improving education and training specifically

for employees involved in the implementation of digital service policies.

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