THE DIFFUSION OF E-GOVERNMENT INNOVATION IN THE FRAMEWORK OF PUBLIC SERVICES (A STUDY ON POPULATION ADMINISTRATION SERVICES AND CIVIL REGISTRATION IN KEDIRI REGENCY)

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ABSTRACT

Purpose: Public services, a government obligation, have a direct impact on society, particularly in the realm of population services. However, population-related issues persist in Indonesia, such as residents needing more proper identification, duplicate data, and invalid records. Innovation in public services serves as a solution for both central and local governments. The Kediri Regency Government actively implements the concept of governance, adhering to the e-government paradigm in executing population administration services conducted by the Population and Civil Registration Agency of Kediri Regency.

Theoretical framework: The Indonesian government has sought various improvements in providing services to address population-related challenges through innovative service models. The recommendation outlined in Minister of Administrative and Bureaucratic Reform Regulation No. 30 of 2014 is a legal foundation for these efforts. Relevant innovations can be employed in the public sector as alternative mechanisms to seek new solutions to longstanding issues (Muluk, 2008;43). Innovation within government agencies is crucial for improving public service delivery by introducing novel approaches and resources.

Method: qualitative descriptive-evaluative approach rooted in a meticulous investigation by the author concerning public service innovations based on e-government, encompassing programs, events, activities, processes, and their execution.

Result: This research examined the initial conditions of public services related to population. Throughout the process of public services, the government of Kediri Regency has introduced an innovation in the form of the E-Government program within the SAHAJA (Satu Hari Jadi) program for the issuance of ID cards (KTP) and various other population documents. On a practical level, this research can provide benefits by offering suitable methods for implementing innovations in population and civil registration services.

Keywords: innovation, e-government, public administration, public policy implementation.

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RESUMO

Objetivo: Os serviços públicos, uma obrigação do governo, têm um impacto direto na sociedade, particularmente no domínio dos serviços da população. No entanto, problemas relacionados à população persistem na Indonésia, como residentes que precisam de identificação mais adequada, dados duplicados e registros inválidos. A inovação nos serviços públicos serve como uma solução para os governos centrais e locais. O Governo da Regência de Kediri implementa ativamente o conceito de governança, aderindo ao paradigma de governo eletrônico na execução de serviços de administração da população conduzidos pela Agência de Registro Civil e População da Regência de Kediri.


Método: abordagem qualitativa descritivo-avaliativa enraizada em uma investigação meticulosa do autor sobre inovações de serviço público baseadas em e-governo, abrangendo programas, eventos, atividades, processos e sua execução.

Resultado: Esta pesquisa examinou as condições iniciais dos serviços públicos relacionados à população. Ao longo do processo de serviços públicos, o governo da Regência de Kediri introduziu uma inovação na forma do programa de e-governo dentro do programa SAHAJA (Satu Hari Jadi) para a emissão de cartões de identidade (KTP) e vários outros documentos da população. Em termos práticos, esta investigação pode trazer benefícios, oferecendo métodos adequados para a implementação de inovações nos serviços de registro civil e populacional.

Palavras-chave: inovação, governo eletrônico, administração pública, implementação de políticas públicas.

1 INTRODUCTION

As the state administrator, the government carries various responsibilities, including ensuring the continuous and effective operation of public services. In Indonesia, according to Law No. 25 of 2009, public service is defined as activities or a series of activities aimed at meeting the needs of citizens and residents for goods, services, and administrative services provided by service providers by regulations. The policy
emphasizes that services involve granting fundamental rights to citizens or the community based on their needs and interests, as stipulated by laws and regulations. One essential form of service the Indonesian government provides to its citizens is population services. In line with the policy outlined in the Republic of Indonesia Law No. 23 of 2006 on Population Administration, population administration is identified as a crucial service for the community.

Indonesia, with a population exceeding 270 million (BPS 2020), experiences rapid and uneven population growth. Unfortunately, this growth is not complemented by attaining high-quality Human Resources (HR), leading to various population-related issues such as poverty, health, unemployment, and the population administration service system (Suartha, 2016). Moreover, administrative issues persist in Indonesia at both central and regional levels. These issues encompass errors in document recording, including typos in names, letters, titles, birthdates, birthplaces, identification numbers, and more. Beyond documentation errors, services rendered must be improved due to subpar human resources and infrastructure, resulting in ineffective and inefficient service provision. The responsibility for rectifying these issues lies with the Population and Civil Registration Agency, abbreviated as Disdukcapil, which assists the public in managing all aspects of population administration, including the creation or modification of ID cards, family cards, birth certificates, death certificates, and more (Hisbani et al., 2015).

The Indonesian government has sought various improvements in providing services to address population-related challenges through innovative service models. The recommendation outlined in Minister of Administrative and Bureaucratic Reform Regulation No. 30 of 2014 is a legal foundation for these efforts. However, numerous local governments need help meeting their innovation obligations as the policy merely offers suggestions. The policy must elaborate on the innovation development process, leaving local governments needing a clear framework for enhancing public services in their regions. This lack of clarity poses a challenge in developing existing innovations, given the diverse perspectives and conditions unique to each region, resulting in variations in implementing innovation across the country.

Additionally, the policy does not specify the standards or concepts that innovations should adhere to, demanding that each local government adaptively develops innovations based on their specific needs. This discrepancy raises a minor issue for researchers, as there are differences in perspectives and conditions experienced by each
region. Consequently, the distribution of innovation development implemented in each region will differ. Moreover, the policy needs to articulate the standards or concepts that innovations should adhere to, compelling each local government to develop innovations based on their specific needs adaptively.

Relevant innovations can be employed in the public sector as alternative mechanisms to seek new solutions to longstanding issues (Muluk, 2008;43). Innovation within government agencies is crucial for improving public service delivery by introducing novel approaches and resources. The changes made by the government to enhance its services to the public in the current digital era necessitate the utilization of communication and information technology as indispensable tools. This implies that, by leveraging technology, citizens can access all processes seamlessly and integrate swiftly. Government service systems involving such technology are known as e-government (Atthahara, 2018; Indrajit, 2005).

The term e-Government entered the realm of Indonesian governance concurrently with the issuance of Presidential Instruction No. 3 of 2003 on the National Policy and Strategy for e-Government Development. The objective is to develop electronic-based governance to enhance the effectiveness and efficiency of public services. Technology in population data processing aims to facilitate employee tasks and generate valuable information for planning, policy determination, and decision-making across various sectors (Tauhid, 2018). This perspective aligns with Habibullah's (2010) viewpoint, asserting that the utilization of information technology in the e-government concept is designed to aid and facilitate government functions. Furthermore, it emphasizes the use of information technology in public service implementation to enhance government accountability through effectiveness, efficiency, and transparency, accessible through the official government website domain in Indonesia (Suaedi et al., 2010).

The Kediri Regency Government actively implements the concept of governance, adhering to the e-government paradigm in executing population administration services conducted by the Population and Civil Registration Agency of Kediri Regency. One notable e-government program is the SAHAJA (One Day Issuance) Online program, collaboratively undertaken with each village through the assistance of the e-Village program and the SAHAJA (One Day Issuance) Android-based application. The SAHAJA (One Day Issuance) Mobile Unit and the most accessible online service through WhatsApp are also part of the innovative initiatives.
Kediri Regency, with its substantial population, faces numerous population-related challenges. For instance, a significant portion of the population in Kediri needs complete identification. It is known that 42,656 individuals in the region do not possess a National ID Card (KTP). Despite implementing public service innovations utilizing the e-government concept, challenges persist, particularly in the need for more awareness among the populace regarding the completion of population administration procedures (Setyowati & Meirinawati, 2021).

The inability of the community to visit the Population and Civil Registration Agency (Disdukcapil) office, coupled with a lack of comprehensive information regarding the government-provided population administration service system, poses significant challenges. Another issue highlighted by Hisbani et al. (2015) is the imbalance between the workforce in population administration and the volume of service requests from the public. This imbalance results in the ineffectiveness of the services provided, leading to a reluctance among the populace to seek service applications. Through pre-observational activities, the author also identified issues related to public awareness in managing population administration. This is attributable to the considerable distance residents must travel to the Dispendukcapil Office in Kediri Regency and the associated operational costs such as transportation, parking, and other expenses, which burden economically disadvantaged groups.

Moreover, the extensive queues and lengthy procedures contribute to citizens losing time while managing their population data. This observation aligns with the study's findings, underlining the public's multifaceted challenges in engaging with the population administration system.

Considering the issues and disparities identified in the implementation of public policy in Kediri Regency, the researcher formulates the research questions as follows:

1. What is the population administration and civil registration services process in Kediri Regency?
2. What are the achievements in population administration and civil registration attained by the Population and Civil Registration Agency of Kediri Regency?
3. How does the diffusion of innovation in population administration services based on e-government occur in the Kediri Regency, and how does it impact service quality? Furthermore, why does innovation in e-government-based population administration services influence service quality?
4. What is the diffusion of innovation model in population administration and civil registration services based on e-government aimed at enhancing the quality of population administration services in the Kediri Regency?

2 RESEARCH METHODOLOGY

This research employs a qualitative descriptive-evaluative approach. The choice of this method is rooted in a meticulous investigation by the author concerning public service innovations based on e-government, encompassing programs, events, activities, processes, and their execution. The selection of a descriptive-evaluative method is guided by Bungin's (2007) perspective that the descriptive-evaluative format adheres to phenomenological principles. This involves examining appearances or phenomena, where the interrelationship between phenomena and awareness is isolated and continually connected dialectically.

The research focus on which this research is based is:

1. Initial Conditions / Processes of Population Administration and Civil Registration Services in Kediri Regency before the Implementation of Service Innovation (Tjiptono & Chandra, 2016; Kotler & Keller, 2012; Parasuraman et al., 2011).


4. Dimensions of e-Government, comprising: Stakeholder Approach, consisting of G-to-G, G-to-C, G-to-B, and G-to-E; Evolution Approach, including catalog presence, enhanced presence, transaction presence, and connected presence; and Divisional Approach, encompassing provide public service, improve managerial effectiveness, promote democratic value, participation mechanism, and regulatory framework.

5. Impact of e-Government-Based Innovation on Service Quality.

7. Model of e-Government-Based Population Administration and Civil Registration Service Innovation to Enhance the Quality of Population Administration and Civil Registration Services in Kediri Regency, comprising Existing Model and Recommended Model.

The planned research locations and sites where the author intends to collect research data include:

1. Office of the Population and Civil Registration Agency of Kediri Regency;
2. Three Sub-district Offices (Kantor Kecamatan);
3. Three Village Offices (Kantor Desa);
4. Several households of selected residents will serve as participants in this research.

The data collection will employ three techniques: interviews with informants, observational findings, and document analysis. The identified informants for interviews in this research are:

1. Head of the Population and Civil Registration Agency of Kediri Regency;
2. Selected staff members who are civil servants in the Population and Civil Registration Agency of Kediri Regency;
3. Representatives of Sub-district Heads and their staff in Kediri Regency;
4. Representatives of Village Heads and their officials in Kediri Regency and
5. Representative members of the community.

The data collection procedure is grounded in the principles advocated by the naturalistic approach inherent in the social science tradition (Lofland & Lofland, 1984). This approach directs attention to the situations and conditions of the research setting events experienced by research subjects, whether individuals or groups, based on their backgrounds (biography, history, and personal or group relationships).

For data analysis in this research, the researcher employs a validity testing technique called the triangulation model. In this testing phase, the objective is to verify the accuracy of data by comparing information obtained from various sources across different phases of the research conducted in the field. There are three triangulation patterns: data comparison, data sources, and data collection techniques. The triangulation process involves cross-referencing or ensuring data accuracy from one informant to
another. This technique allows researchers to compare data findings with other data collection techniques.

The researcher has formulated the following conceptual framework for this study:

![Image Research Framework](source: Processed Data (2023))

**3 LITERATURE REVIEW**

**3.1 PREVIOUS RESEARCH**

This study draws on several prior research works, including but not limited to Arundel et al. (2019), Atthahara (2018), Kadir et al. (2019); Maolana et al. (2020); Melinda et al. (2020); Pratama (2020); Purwadi et al. (2020); Vickers et al. (2017); Wahyudi (2016); Wismanu et al. (2018); Amrozi, et al. (2022); Setyowati & Meirinawati (2021).

**3.2 PUBLIC ADMINISTRATION PARADIGM**

Denhardt & Denhardt (2000) reveal three perspectives within public administration. These perspectives are Old Public Administration, New Public Management, New Public Administration, and New Public Service. The Old Public Administration model, or Classical Public Administration, focuses on how the
government conducts administrative actions democratically, efficiently, and effectively, free from power manipulation. It emphasizes how the government can operate precisely, correctly, and successfully (Frederickson, 1976). On the other hand, the New Public Management (NPM) paradigm, introduced by Christopher Hood (1991), posits that private-sector management practices are superior to those in the public sector. The primary characteristics of NPM involve transforming bureaucratic environments based on standardized rules toward a more flexible and public-interest-oriented public management system (Frederickson, 1976; Hood, 1991; UNDP, 2015).

Another concept is the New Public Administration (NPA), the foundation for innovation in population administration services. The New Public Administration paradigm fundamentally critiques the old or classical administration paradigm, which overly emphasizes economic parameters. According to the New Public Administration paradigm, public administration performance is not only assessed based on economic value, efficiency, and effectiveness but also on social equity values (referred to as the third pillar after efficiency and effectiveness). Due to the commitment to social equity, public administrators must be proactive administrators, not merely apolitical bureaucrats (UNDP, 2015; Hartley, 2005). The latest concept is explained by Denhardt & Denhardt (2003), who introduced the New Public Service paradigm. The New Public Service is a public management theory that advocates equality and equal rights among citizens. In this model, public interests are formulated through dialogue among various societal values. Political elites do not formulate public interests as outlined in the regulations.

3.3 CONCEPT OF PUBLIC SERVICE

The government's provision of services is often referred to as public service. In this context, public service refers to something provided by both government and private organizations, as the general public typically cannot fulfill their needs individually but rather through collective efforts. The fulfillment of needs is aimed at the entire community for social well-being (Sinambela: 2010). Meanwhile, the definition of public service by Regulation No. 96 of 2012 on Public Services is activities aimed at fulfilling the needs of services according to regulations for every citizen and resident for goods, services, and administrative services provided by public service providers.

In general, services can be tangible intangible, and services. Intangible goods and service services are synonymous. These types of services have fundamental differences;
for example, tangible goods services are easily observable and can be evaluated for quality, while service services are relatively more challenging to assess. Nevertheless, in practice, the two are often intertwined. Tangible goods and vice versa usually accompany a service; service services always follow tangible goods services.

Figure 2. Model Participation in Public Services

![Model Participation in Public Services](image)

Source: Suwarno, 2005

Figure 1.4 illustrates the fundamental concept of the government's role as a provider of public services, citizens as users or recipients of services, and their role in assisting in delivering public services (co-producer).

3.4 INNOVATION IN PUBLIC SERVICES

Public service innovation is considered successful if it results from creativity and implementation of service product innovation, service process innovation, service method innovation, policy innovation, and system innovation. Firstly, product or service innovation involves changes in the form and design of products or services. Secondly, process innovation is a sustainable quality renewal that refers to a combination of organizational, procedural, and policy changes necessary for innovation (Basuki et al., 2018; Haryani & Yanartin, 2020). Thirdly, service method innovation entails new ways of interacting with service users or new approaches to service delivery. Fourthly, innovation in strategy or policy involves changes in vision, mission, objectives, new strategies, and their rationale based on existing realities. Lastly, system innovation involves system interactions that encompass new or updated ways of interacting with other actors, or in other words, changes in governance (Basuki et al., 2018; Haryani & Yanartin, 2020).

Rogers (2003) holds a differing opinion, as he categorizes the stages of innovation into three phases: innovation, diffusion, and adoption. Diffusion is the process of
communicating an innovation to social system members through specific communication channels over a specified period. Diffusion of innovation certainly possesses several characteristics that can influence the adoption rate by specific individuals or social groups. The primary goal of innovation diffusion is the adoption of ideas or knowledge by individuals or specific groups. Rogers (2003) categorize innovation diffusion into four parts: relative advantage, compatibility, complexity, and trialability.

Specifically, Rogers (2003) asserts that innovation diffusion forms the basis for supporting stakeholders' decisions to adopt innovation by incorporating balanced influences from individual, subgroup, and system levels. This explains organizational changes and reduces uncertainty. This is grounded in the notion that communication is the primary channel for diffusion, implying a route toward adoption that relies more on social influence mechanisms than on the objective aspects of the innovation itself. Communication in this definition is emphasized in the sense of mutual information exchange (reciprocal relationships) among several individuals, occurring both centrally (convergence) and divergently (divergence) in a spontaneous manner. Therefore, through communication, a consensus about innovation will likely emerge among community members.

Zweers & Planque (2001;31) identify e-government as the government's electronic provision of information, services, or products, unrestricted by location and time, offering added value for participation across all sectors. The concept of shared participation in e-government is also articulated by Indrajit (2005;5), stating that the objective of a service utilizing the e-government concept is a shared goal among various stakeholders with a common vision. Generally, e-government is a modern interaction mechanism among stakeholders in governance involving rapidly evolving internet technology. The main goal is to enhance the quality of services to all stakeholders. This implementation can be distilled into three fundamental concepts: interaction among government stakeholders, involving government with various other stakeholders such as the public and private sectors; the utilization of information technology to facilitate all forms of administrative activities and governance; and the improvement of service quality provided by the government, where the primary purpose and function of the government are to deliver public services to other stakeholders.

In the concept of e-government, there are three approaches based on different perspectives. The first approach widely discussed is the stakeholder approach. In this
approach, Indrajit (2016) breaks down the stakeholder approach into four dimensions: Government to Government (G-to-G), Government to Citizen (G-to-C), Government to Business (G-to-B), and Government to Employees (G-to-E). The basis for Indrajit's grouping is how the government interacts with other stakeholders in fulfilling its governance functions (Irawan & Hidayat, 2021).

Based on Figure 1.5, the implementation of e-government development that must be carried out by all levels of the Government in Indonesia consists of 4 aspects:

1. Access: This involves telecommunication networks, internet infrastructure, and other communication media that the public can utilize to access public service portals.
2. Public Service Portals: These are specific internet sites providing particular public services, integrating the processing and management of information and electronic documents across various relevant agencies.
3. Information Management & Processing Organization: This refers to support organizations (back-office) responsible for managing, providing, and processing electronic information and documents.
4. Infrastructure and Basic Applications: Encompassing all necessary hardware and software infrastructure to support the management, processing, transactions, and distribution of information.
Based on several issues, theories, and the research focus, the researcher constructs the research conceptual framework as follows:

**Figure 4. Research Conceptual Framework**

### ADMINISTRATIVE AND CIVIL REGISTRATION SERVICE ISSUES
1. Lack of public awareness in handling population administration (Rohana & Medinawati, 2001).
3. The budget allocated to improve the quality of population administration services is still insubstantial (Rahmat, 2013).
4. Imbalance between administrative staff and the number of people requiring services (Hidayat, 2016).

### PUBLIC SERVICE INNOVATION POLICIES
2. Government Regulation No. 55 of 2017 on Regional Innovation.
3. Regional Regulation of Kediri District in 2015 concerning the Position, Organizational Structure, Task Alignment, Functions, and Work Procedures of the Population and Civil Registration Office.

### ADMINISTRATION OF POPULATION AND CIVIL REGISTRATION SERVICES

#### PUBLIC SERVICE THEORY
(Kaplan & Chiou, 2001; Keller & Keller, 2012; Parasuraman et al., 1991)
1. Tangible.
2. Responsiveness.
3. Assurance.

#### E-GOVERNMENT THEORY
(Karahalios, 2006; Gómez, 2012; UN, 2010)
2. Impact of Innovation.
4. Reliability.
5. Empathy.

#### THEORY OF PUBLIC SERVICE INNOVATION DIFFUSION
(Rogers, 2005)
1. Relative advantage.
2. Compatibility.
3. Complexity.
4. Trialability.

#### IMPROVING THE QUALITY OF ADMINISTRATION OF POPULATION AND CIVIL REGISTRATION SERVICES
(Mamadou et al., 2006)
1. Transparency.
2. Accountability.
3. Conditional.
4. Participation.
5. Equity.

### 4 CONCLUSION

This research examined the initial conditions of public services related to population. Throughout the process of public services, the government of Kediri Regency has introduced an innovation in the form of the E-Government program within the SAHAJA (Satu Hari Jadi) program for the issuance of ID cards (KTP) and various other population documents. This program represents a tangible innovation in public services that helps address classical issues in Indonesia related to population data.

Implications The theoretical contributions of this research are expected to be valuable for developing theories in public administration, particularly in public services, public service innovation, and E-Government. Additionally, this research is anticipated...
to contribute thoughtfully to the idea that the diffusion model of public service innovation can be elaborated upon in the theory of E-Government, supporting the theory of public services. On a practical level, this research can provide benefits by offering suitable methods for implementing innovations in population and civil registration services by the government of Kediri Regency, specifically, and all local governments in Indonesia, in general. It also provides insights into the mechanisms that can be used as references in implementing Population and Civil Registration Service Innovations through utilizing the E-Government paradigm by the government of Kediri Regency, specifically, and local governments in Indonesia.
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