# The SuratKu Application as Electronic Mail Innovation in Supporting Governance at the Kulon Progo Regency Communication and Information Office

Ach. Apriyanto Romadhan<sup>1\*</sup>, Switsa Cellindita<sup>2</sup>, Asep Nurjaman<sup>3</sup>, Iradhad Taqwa Sihidi<sup>4</sup>, Muhammad Kamil<sup>5</sup>

\*Corresponding Author: achapriyantoromadhan@umm.ac.id <sup>1,2,3,4,5</sup> Department of Government Studies, Universitas Muhammadiyah Malang DOI: 10.22219/jurnalsospol.v8i2.22550

### Abstract

This study focuses on the "SuratKu" electronic mail innovation made by the Kulon Progo Regency Communication and Information Office. The innovation aims to support good governance in the correspondence management process so that it is faster, more precise and accurate. This is a form of the bureaucratic digitilization process. Specifically, this paper tries to see how the developed information technology innovations can facilitate communication and coordination between government agencies/government to government in Kulon Progo Regency. The method used in this study is a qualitative research with a descriptive approach. Data collection techniques were carried out by observation, interviews and documentation. And for the results, the data was analyzed using an interactive data analysis model. The results showed that after going through various stages of testing and testing the feasibility of the SuratKu innovation, the implementation of the SuratKu innovation had run smoothly and was able to provide more effective and efficient mail administration services so that it could be adopted for implementation and use in all regional organizations.

### Abstrak

Penelitian ini berfokus pada inovasi surat elektronik "KuratKu" yang dibuat oleh Dinas Komunikasi dan Informatika Kabupaten Kulon Progo. Inovasi tersebut bertujuan untuk mendukung tata kelola yang baik dalam proses pengelolaam korespondensi surat menyurat agar lebih cepat, tepat, dan akurat. Secara spesifik, tulisan ini mencoba melihat bagaimana inovasi teknologi informasi yang dikembangkan dapat mempermudah komunikasi dan koordinasi antar lembaga pemerintah di Kabupaten Kulon Progo. Metode yang digunakan dalam penelitian ini adalah kualitatif dengan pendekatan deskriptif. Teknik pengumpulan data dilakukan dengan cara observasi, wawancara, dan dokumentasi. Adapun hasil analisis data menggunakan model analisis data interaktif. Hasil penelitian menunjukkan bahwa setelah melalui berbagai tahapan pengujian dan pengujian kelayakan inovasi SuratKu, implementasi inovasi SuratKu telah berjalan dengan lancar dan mampu memberikan kemudahan pelayanan administrasi surat yang lebih efektif dan efisien sehingga bisa diadopsi untuk diimplementasikan dan digunakan di semua organisasi daerah

### Keywords

Innovation, Kulonprogo, Local Governance, SuratKu

### Article History

Received August, 8 Revised September, 29 Accepted October, 14 Published October, 31

#### **Corresponding Author**

Ach. Apriyanto Romadhan Program Studi Ilmu Pemerintahan, Kampus 3, GKB 1, Lt.6. Fakultas Ilmu Sosial dan Ilmu Politik, Universitas Muhammadiyah Malang, Jl. Raya Tlogomas 246, 65144.

### Introduction

Along with the development of increasingly advanced information technology, technology information is very much needed by humans as facility and infrastructure to increase creativity in a job. The reason is that the use of information technology also functions as one of the considerations in the problem solving process and decision or policy making which is then applied in the form of administrative services for organizations or companies, both government and private (Anand, 2020; Anastasiadou et al., 2021; Herold et al., 2021; Madyatmadja et al., 2020; Walle, 2020; Badea, 2014). The development of information technology is a trigger for the government to make strategic changes and encourage government officials to face a new paradigm in an effort to improve bureaucratic performance in order to realize more effective and efficient governance (Loilatu et al., 2021; Purnomo et al., 2021; Sihidi et al., 2022; Fathur & Mamun, 2019). Within government institutions, the government's capability in using information technology begins with the emergence of electronic government issues that are used to carry out government activities which are supported through Presidential Instruction Number 3 of 2003 concerning National Policies and Strategies for E-Government Development, which states that the development of e-government is the government's step in providing electronic-based public services in order to create effective and efficient services (Hayat, 2017). Several studies show that if implemented consistently, E-Government is proven to be able to optimize public services and provide satisfaction to the community (Cuadrado-Ballesteros et al., 2021; MácHová et al., 2018; Alfarraj & Alalwan, 2016;Russo et al., 2014).

In line with the development of the concept of e-government where the government makes technology as a form of public service to run more effectively and efficiently (Klievink & Cunningham, 2016; Rodríguez-Navas & Breijo, 2021), e-government services continue to be improved, especially in government to government services with the aim of facilitating communication access between regional devices in using government-based services. Electronic system in the governance process which is realized through the automation of electronic-based government administration service innovations or electronic-based government systems (Chavez et al., 2017; Domalis et al., 2021; Hellmeier, 2016; Hujran et al., 2021; Khera & Patibandla, 2020; Klievink & Cunningham, 2016; Rodríguez-Navas & Breijo, 2021; Ye & Yang, 2020). The electronic-based government administration system is supported through the Regulation of the Minister of Communication and Information Number 2 of 2015 concerning Procedures for Registration of Electronic Systems of State Organizing Agencies and Government Regulation Number 95 of 2018 concerning Electronic-Based Government Systems that, through communication and information technology, are able to make the service development process possible. Electronic-based public services can be implemented optimally, evenly and spread to all levels of society. In connection with this, the Kulon Progo Regency Government seeks to accelerate the bureaucratic process of digitizing between regional devices to support the egovernment concept with the publication of SuratKu Innovations. SuratKu innovation is a mailing management system used to manage official documents electronically which was built by utilizing legal and web-based information and communication technology to facilitate the implementation of administrative management of correspondence.

In Indonesia, the electronic-based government administration system is supported through the Regulation of the Minister of Communication and Information Number 2 of 2015 concerning Procedures for Registration of Electronic Systems of State Organizing Institutions and Government Regulation Number 95 of 2018 concerning Electronic-Based Government Systems which, through communication and information technology, can enable the development process. Electronic-based public services can be implemented optimally, evenly and spread to all levels of society. In line with the development of the concept of e-government, where the government makes technology a form of public service to run more effectively and efficiently (Klievink & Cunningham, 2016; Rodríguez-Navas & Breijo, 2021). This situation affects the number of studies that lead to only one sector, especially the public sector.

Based on these problems, the SuratKu innovation was actualized which is supported through Regent Regulation No. 13 of 2020 concerning the Implementation of Electronic Office Applications in Local Government Environments Through Electronic Mail Applications. Based on the Regent's Regulation, the embodiment of SuratKu aims to actualize good governance in the correspondence management process so that it runs more quickly, precisely, accurately and can reach all Regional Apparatus Organizations as a form of bureaucratic acceleration process. SuratKu's innovation is not only an innovation useful to send letters or reports, but there are many other features in SuratKu, namely automatic meeting room reservations, disposition, letter generation, verification as well as electronic-based signatures that have been integrated with the Cyber Agency Electronic Certification Agency and the State Password of the Republic of Indonesia whose authenticity is guaranteed. So that with the innovation of SuratKu, the administration of correspondence services becomes more structured and focused, especially in document archives that will not be damaged or scattered because documents are stored in soft files since the innovation of SuratKu actualized in 2020.

Through the presence of electronic mail innovation, it also aims to realize a paperless office in order to reduce the use of paper stock and reduce the budget for office stationery at agencies as a form of supporting eco-office activities (Sari, 2020). Referring to this, the SuratKu innovation was created by the Kulon Progo Regency Communication and Information Office so that after that the mail service process can be carried out electronically between stakeholders in Kulon Progo. Based on the explanation above, the formulation of the problem taken by the researcher is how the "Suratku" Electronic Mail Innovation in Supporting Governance at the Kulon Progo Regency Communication and Information Office. To explain this, this study uses Roger's theory (Rogers, 2003), which looks at innovation attributes from relative advantage, compatibility, complexity, triability and observability.

Moreover, nowadays, many e-government studies are merely oriented to the community in overcoming problems so that public services run more effectively and efficiently (Sihidi et al., 2021; Doramia Lumbanraja, 2020; Heriyanto, 2022; A. Irawan, 2018; B. Irawan, 2013; Kasus et al., 2020; Kurniawan & Atmojo, 2020; Meidiansyah et al., 2019; Rimapradesi & Surwandono, 2022; Suharyana, 2017; Susianto & Ridhawati, 2022; Zahri & Hasan, 2022). Whereas the study of e-government is not only a matter of government to citizens but also includes government to government services to facilitate communication access between regional devices in using

government-based services. Electronic systems in the government administration process are realized through the automation of electronic-based government service innovations or electronic-based. This research intends to complement the study of e-government innovation in the government to the government sector in Indonesia, especially at the regional level. In this regard, the Kulon Progo Regency Government seeks to accelerate the bureaucratic process of digitizing among regional apparatus to support the concept of e-government with SuratKu innovation. SuratKu innovation is a mail management system used to manage official documents electronically, which was built by utilizing legal information and communication technology.

The emergence of SuratKu innovation occurred because of demands from the central government to local governments to use electronic-based government services as well as the implementation of correspondence services at the Kulon Progo Communication and Information Office which can take up to 3 days, this does not count if there are technical problems such as the signing process which is sometimes slow because the people in charge is out of town or even experiencing a fairly congested event, this greatly hinders the course of the correspondence. Whereas according to the ethics of correspondence, letters should be processed at the longest, which is 2 x 24 hours (Sedianingsih et al., 2014). Conventional signatures are also very vulnerable to counterfeiting. Therefore, the presence of SuratKu is also an answer to problems related to the administrative process of organizational services, namely saving time, costs and energy in the process of sending and receiving letters (S & ari, Yunita Purnama., 2013).

### Method

The research used qualitative research with a descriptive approach with the aim of making a systematic, factual, accurate description, description of the factors and relationships between the phenomena studied (Subarsono, 2011). The reason is that this research described how the government sector, namely the Communication and Information Office of Kulon Progo Regency, has carried out an "SuratKu" Electronic Mail innovation with the aim of making secretarial administration easier for the employees, especially the correspondence process so that the correspondence runs more effectively and efficiently. The method used to analyze the measurement of the innovation quality of SuratKu's services is five innovation attributes from Rogers, this is because through these attributes it can analyze the results and impacts of the innovations created (Rogers, 2003).

## Result and Discussion SuratKu Innovation Ideas

The birth of the SuratKu innovation in Kulon Progo Regency was a demand from the central government to the regional government which requires government agencies to use electronic-based public services so that they are able to suppress the occurrence of mail administration services that seem slow and inefficient. SuratKu's innovations are also stated in the Smart City Masterplan of Kulon Progo Regency for 2018-2028 which clearly proves that the government is very serious and committed to achieving the implementation of electronic offices in supporting an effective and efficient mail administration process. But in fact, apart from these

demands, the implementation of correspondence at the Kulon Progo Regency Communications and Information Office also did not run effectively and was convoluted and takes 3 days just to process the letters.

Based on this problem, the SuratKu innovation was finally formed which refers to the Kulon Progo Regent Regulation Number 5 of 2020 concerning the Implementation of an Electronic-Based Government System within the Kulon Progo Regency Government which began with the formation of a SuratKu application implementation team which was also stated in the Decree of the Kulon Regency Communication and Information Office. Progo No. 029/2019. Through the formation of the team which was based on facilitating coordination in the creation of SuratKu innovations, so that the activity more focused and organized. Through the formation of the team, it was found that the name of this application system is "SuratKu" which means "Surat" is the medium for sending manuscripts while "Ku" is Kulon Progo. Based on the name given, the Kulon Progo Regency Communication and Information Office hopes that the SuratKu innovation system can be used by all regional apparatus organizations and organizations in Kulon Progo Regency.

## Suratku Innovation Feasibility Study

Feasibility studies in an innovation affect the success of the innovation created, this aims to make a decision on an innovation or a new system that will be made whether it is feasible to be developed or not (Syaifullah & Widianto, 2014). The feasibility study that will be used in this research is the TELOS feasibility study which stands for Technical, Economic, Law, Operational, and Schedule, namely :

## 1. Technical Feasibility

Technical feasibility is related to the technology to be developed. Technical feasibility plays a major role in the SuratKu innovation feasibility study which will be the focal point of the Communications and Informatics Office as an innovation maker in order to be able to see in detail the risks and consequences associated with the use and analysis of the website. This technical feasibility relates to the network, digital device or hardware, and application or website that will result in viable innovation. The following are the device components used by SuratKu innovation as follows :

Table 1. SuratKu System Device Components						
Web	Component	Brand	Туре	Description	Web	
Server					Browser	
PHP	Bare Metal	IBM	System	x SuratKu System	Google	
	Server		3100 M3	(RAM 2 GB, HDD	Chrome,	
				1 X 250 GB)	Mozilla	
					Firefox	

Source: Department of Communication and Information Kulon Progo Regency

Based on the table, Suratku's innovation uses the Bare Metal Server component, which is a public cloud service without an installed application operating system and uses

the IBM platform which is one of the leading platforms with easy maintenance and repairs in case of damage, even the components installed on this platform are of high quality so rarely damage occurs. Through the advantages that are applied in the SuratKu innovation system, researchers can conclude that through the tools and technology created by the Kulon Progo Regency Government in shaping the SuratKu innovation, it has met the technical feasibility standards.

## 2. Legal Feasibility

Legal feasibility is an application system that is proposed or will be created that does not violate applicable laws and is officially listed on legality. SuratKu Innovation is operated by using open source software which is definitely legal. SuratKu's innovation itself is also legally tested as stated in Regent Regulation No. 13 of 2020 concerning the Implementation of Electronic Office Applications in Local Government Environments through Electronic Mail Applications and also Kulon Progo Regent's Regulation Number 5 of 2020 concerning the Implementation of Electronic-Based Government Systems within the Regency Government. Kulon Progo. So in terms of legal feasibility, of course, SuratKu's innovation will not be related to existing legal problems. This is because the SuratKu system was developed legally, both organizationally and in procedures that have a legal basis. SuratKu also uses a software system that has an official license to ensure that it is not illegal to use it.

## 3. Economic Feasibility

The economic aspect is always important in all respects as well as the economic viability. This economic aspect relates to return on investment or how long the investment costs can be returned. This aspect is the initial capital in the development of a system that will be realized as well as the development of the SuratKu system in Kulon Progo Regency. The benefits of SuratKu provided by the system are greater than the costs incurred. In that case, SuratKu is considered feasible from an economic point of view, both in terms of budget and performance benefits. The Suratku system has had a good impact where this innovation is feasible to use in an economic scope, because Suratku has the impact of a significant change in the use of fees used by the relevant agencies in order to realize a more paperless correspondence administration. Economic feasibility provides benefits that can be measured from two classifications, namely:

a. Intangible Benefits

This intangible advantage leads to users' benefits through SuratKu's innovation, namely efficiency, effectiveness, transparency, and accountability in the performance of mail administration services that can be used in real-time and up to date. This intangible advantage leads to the benefits that users get through the innovation of SuratKu, namely an increase in the effectiveness of the performance of mailing services, an increase in employee satisfaction, and the innovation of SuratKu that can be used in real time and up to date.

b. Tangible Benefits

This tangible advantage relates to whether the innovation costs incurred, especially in facilities and infrastructure, have a higher economic value than before the innovation was implemented. Tangible benefits determine whether SuratKu's innovations can improve to offer adequate levels and capacity of services to reduce cost problems and increase profits for service users. Based on an interview with Chief Development of Information Systems in the Field of Informatics Applications that the budget for the use of costs in the administration of correspondence services is reduced by approximately 75% from the previous budget. So that through the economic feasibility of this innovation, SuratKu is feasible to apply. Tangible profit serves to determine whether the SuratKu system can offer an adequate level and capacity of service to reduce cost problems and increase profits for service users. Based on an interview with Chief Development of Information Systems in the Field of Informatics Applications that the budget for the use of costs in the administration of correspondence services was reduced by approximately 75% of the previous budget. So that through the economic feasibility of SuratKu innovation, it is feasible to apply.

## 4. Operational Feasibility

This operational feasibility is focused on the users of SuratKu. The feasibility of this operational work can be seen from the PIECES framework developed by James Wetherbe covering performance, information, economy, control, efficiency, and service. The PIECES framework aims to measure whether the developed system can be operated properly or not within the organization (Turban et al., 2000).

a. Performance

The performance aspect aims to determine the throughput and response time of innovation. The Chief Development of Information Systems in the Field of Informatics Applications stated that Suratku innovation system has so far provided good output in the process of processing letters being faster than previously done conventionally, because the time required in one letter only takes approximately 15 minutes compared to the previous one. takes more than 3 days. Not only related to the response time of SuratKu's innovation, it also updates service performance for the better as shown below :

Copyright © 2022, Ach. Apriyanto Romadhan, Switsa Cellindita, Asep Nurjaman, Iradhad Taqwa Sihidi, Muhammad Kamil

This is an open access article under the CC–BY-SA license

Table 2. Different Versions of SuratKu				
Version 2021	Version 2022			
Delivery of letters is carried out by the Head of the Service After the Electronic Signature	Mail delivery is done by the admin of the Service			
The process of giving the letter number is carried out by the Service Admin	The numbering process is done automatically			
Manual incoming mail cannot add attachments	Manual incoming mail can add attachments			
Unable to receive and send letters from the village	Already able to receive letters from urban villages that are integrated with SID			

Source: Department of Communication and Information Kulon Progo Regency, 2022

Table 2 above explains that SuratKu underwent renewal and improvement of service features in the development of innovation. For example, there is an increase in the mail numbering service feature from a manual process to an automated process. Through the renewal of the system, the SuratKu innovation system wants to facilitate the process of mailing services to be more effective and efficient by prioritizing the digitalize system to support the electronic-based government system effectively and efficiently. Through the renewal of the system, the SuratKu innovation system clearly wants to make the mail service process more effective and efficient by prioritizing the digitization system.

### b. Information

The information aspect is useful to see the system provides the information needed by the user and is actual and up-to-date. In the information section, SuratKu system always upgrades automatically when there are new notifications. With a system that can perform automatic updates, this makes the SuratKu system feasible in providing actual and fast information for users in managing mail administration, even users can see how many letters or files must be answered immediately for follow up. The SuratKu system also provides information on the number of letters or files that must be completed immediately. So that it can make it easier for users to complete documents that must be handled immediately, in other words SuratKu has been able to be used in real time and up to date.

c. Economy

The economic aspect of the operational feasibility study is to determine the level and capacity of adequate services to reduce cost problems and increase profits for service users. Based on the results of interviews with Chief Development of Information Systems in the Field of Informatics Applications, revealed that SuratKu system reduces the use of costs for mail services, which previously had to cost more because they had to spend on stationery and couriers, now mailing services have been carried out electronically and the costs incurred are lower, which has decreased

approximately 75% of the previous budget. So that SuratKu has been able to meet economic feasibility where the SuratKu system can minimize the use of costs and can increase profits for users of SuratKu services.

d. Control

The Control aspect is useful to know that the system from SuratKu can offer a control in fraud or error access to ensure data accuracy and security. The SuratKu system has been equipped with letter character classification features such as secret letters, personal letters, and regular letters. Moreover, the types of letters sent are not only letters such as invitations but also such as power of attorney, warrants, official notes, minutes, financial reports, examination letters, assignment orders, memos, and others, as a form of security for the mail service process. Not only mail security, but the electronic signature feature has also been equipped with a Passpharse code, which is a password or security used to secure digital certificate files, so that only employees who have digital signatures can find out the Passpharse code.

e. Efficiency

The efficiency aspect is useful for measuring the level of work efficiency possessed by the system in achieving goals that make maximum use of available data sources such as people, time and others. Through a more efficient system, it will be easier for SuratKu users to perform their services. The efficiency level of SuratKu provides an increase in mail services or the mailing process becomes more effective, which is evidenced by the faster rate of letter completion than before.

Indicator	Before SuratKu	After SuratKu	Description
Document Delivery Speed (Efficiency)	8 - 40 Working Hours (40 Working Hours = 100%)	1 – 6 Working Hours (6 Working Hours = 15%)	Speeding up Delivery of Letters or Documents 85%
Document Storage	Document Archive Folder Manual	Storage 250 GB	Letters Stored in an Electronic Incoming and Outgoing Mail Database
Shipping Procedure	Delivery by person to person	Direct delivery to the receiving user	Direct mail is distributed to users or recipients

Table 3. Percentage of SuratKu Implementation Performance

Source: Department of Communication and Information Kulon Progo Regency, 2022

f. Service

Services in a feasibility study are useful for knowing that a system created can provide the services desired by service recipients so that they can be developed in a targeted manner. Based on the results of interviews with Chief Development of Information Systems in the Field of Informatics Applications, revealed that we continue to develop this SuratKu system from 28 regional device organizations and 12 villages that are connected to the SuratKu system, now in 2022 we will expand the SuratKu system network which is planned to be accessed by 42 regional apparatus organizations and 87 village, so that later the village head can access the SuratKu system. This proves the government's seriousness in realizing electronic offices through effective and efficient services in order to realize good governance. Based on the operational feasibility, it is known that the SuratKu system is able to improve the quality of mail administration services to be safer, more effective, and efficient. Moreover, the SuratKu system can be accessed using any device and is easy to operate, so through SuratKu it can increase the potential for office performance in terms of managing mail administration to be safer, more effective, efficient, and with integrity.

## 5. Time Eligibility

Time eligibility relates to the time limit for developing a system that has been determined and agreed upon by the regional government together with the Regional Apparatus Organization. The concept of timeworthiness itself is measured from hours, days, weeks and months until a system can be realized. The SuratKu system itself in the scheduling stage has several stages in developing the innovation of the SuratKu system, starting from planning, system creation, testing, socialization and implementation.

I able 4. I imline of SuratKu			
Stages	Timeline		
System Planning and	January 2019 - July 2019		
Development			
Trials	31 July 2019 – December		
	2019		
Socialization at Diskominfo	January 17, 2020		
Roadshow	January 30 – February 9, 2020		
Implementation	17 February 2020 – Now		

Table 4 Timel

Source: Department of Communication and Information Kulon Progo Regency

Making the SuratKu system based on the table above shows that this system takes quite a long time to reach the implementation stage and even now, SuratKu has been in operation for more than one year. Although it took quite a while to make, the SuratKu system is feasible to be implemented in the Kulon Progo Regency Government in order to provide easy and fast services in the administration of correspondence to support good

governance. This is supported by planning with a mature concept by the Department of Communication and Information of Kulon Progo Regency.

## SuratKu Innovations in Supporting Governance

Seeing the innovations offered by the government through the realization of SuratKu, the meaning of an innovation is closely related to an environment with dynamic characteristics and will experience developments that will make an environment of good quality and sustainable. The results of the embodiment of the SuratKu innovation system are described using a sequence that is in accordance with the operational definition, namely how to adopt innovation according to Rogers' specific theory, the order of analysis and discussion of interview results is as follows:

## 1. Relative Advantage

According to Rogers that the level of profit from an innovation that is created can be measured through economic value, pleasure, social, or other factors that have important components. The value of this relative advantage attribute is used to see the extent to which an innovation can provide benefits for its recipients. The same is the case with the innovation system of SuratKu's mailing administration service which has advantages or advantages as well as more novelty value compared to the conventional correspondence system. The level of profit from this innovation can also be seen from various aspects such as convenience, economy, speed, and satisfaction of the users of the innovation.

SuratKu system has completely transformed from a conventional process to an electronic one. This is also strongly supported by features that can provide electronic signatures, especially since they are integrated with the National Cyber and and State Code of the Republic of Indonesia. The electronic signature feature can be done in various places because the Suratku website can be accessed anywhere and anytime. The disposition process, which will be completed within a minimum of 3 days, can now also be carried out in just a few minutes, so as to speed up the handling of problems. The reason is that employees can give dispositions anywhere while still paying attention to the development of reports via the internet in SuratKu.

Likewise with the benefits from an economic point of view where SuratKu also provides benefits for the relevant agencies, namely the Communication and Information Office of Kulon Progo Regency, the article is that through the implementation of this SuratKu innovation, the budget for correspondence administration needs is reduced from the previous budget value. The following is the percentage of SuratKu's innovation profits: This is an open access article under the CC–BY-SA license

Indicator	Before	After	Description
	SuratKu	SuratKu	I I I
Letter Creation Speed	Manual (3 days)	Electronics (15-30 minutes)	Making letters more efficient
Signature Process	Manually using a pen	Electronical ly based and already integrated with BSrE	Electronic signature based mail
Letter Document	Wasteful Use of Paper	Digital Documents in the form of PDF, JPG, PNG.	Creating a paperless office
Meeting/Eve nt Room Loan	Manual submission	Via Electronics	More efficient procedures

Source : Author's Analysis, 2022

The thing that can be drawn from the researcher is that from the results of interviews and the author's analysis for the relative advantage indicator, the SuratKu innovation is an innovation that has many advantages and a significant impact on the quality of performance of the Kulon Progo Regency Communication and Informatics Service employees, which is nothing but evidenced by the results of the Government Agencies Performance Report (LKIP) performance in From 2019 to 2020, there was an increase in the target of the electronic-based government application development program from 69.54% to 81.25%. From these data, it can be said that the SuratKu innovation system has fulfilled the first characteristics or attributes of innovation which are the conditions for the formation of innovation.

## 2. Compatibility

The second indicator of this research is compatibility. According to Rogers, an innovation can be identified from the values, experiences, and needs of the recipients of the innovation. Innovations that are not in accordance with values are believed to not be accepted as quickly as innovations that are in accordance with the circumstances they should be. In other words, innovation must be in accordance with field conditions where the problem can be overcome. The suitability attribute of the SuratKu innovation system organized by the Kulon Progo Regency Communication and Information Office is seen from the existing values and norms. This situation or situation can be seen with the application of the SuratKu innovation system which takes into account the regulations for the formation of the SuratKu innovation system which has been regulated by the Kulon Progo Regent Regulation No. 13 of 2020 concerning the Implementation of Electronic Office

Applications within the Regional Government. This Regent's Regulation is also the basis for the establishment of the SuratKu innovation system.

The SuratKu innovation system which has now been realized by the Kulon Progo Regency Communication and Information Office has also considered and adjusted the procedures or service mechanisms that are in accordance with the values and norms that exist in the office environment so that this system can later be accepted by employees. The procedure is regulated in the Kulon Progo Regent's Regulation No. 13 of 2020 Part V regarding the Administration of Office Papers, that in the regulation it is explained how official letters or documents are managed from beginning to end to be followed up immediately according to their needs.

In conformity with the past, the SuratKu innovation system was born because of an improvement or improvement based on past conditions. The reason is that before the innovation of SuratKu, the correspondence process was carried out manually, both in terms of making letters, dispositions, signatures, and sending letters. It is very ineffective and very time consuming. The costs incurred by using letters that are still conventional will also consume quite a lot of budget, especially the use of facilities and infrastructure to support government services should have developed following the civilization of the smart city. Responding to the situation in the field, the SuratKu innovation system was born as a support to facilitate the problems of correspondence administration services at the Kulon Progo Regency Communication and Information Office quickly, efficiently, and easy to use. The implementation of a fast, accurate, and efficient correspondence administration and Information Office in an effort to create good governance through the use of information technology that can be accessed online and in real time.

### 3. Complexity

Complexity is the third indicator of the attributes of innovation proposed by Rogers. In this study, complexity is defined as a new innovation where the new innovation certainly has complexity in its implementation. Through the SuratKu innovation, it is hoped that the Kulon Progo Regency Communication and Information Office will be able to provide better service innovations than before or before this SuratKu innovation. Regarding the complexity of the SuratKu innovation, the Kulon Progo Regency Communication and Information Office in implementing the SuratKu innovation system shows results within a safe threshold, this is because the SuratKu system is simple and easy to understand by its employees. The lack of complexity in SuratKu itself is also supported by the explanation or procedure for using SuratKu which is available on the official website. So that the absence of complexity is certainly the answer to how easy the system from SuratKu is to be used by its users.

Behind the easy and efficient access to mailing services through the innovation of SuratKu, of course, SuratKu system also has a drawback, namely the not yet optimal implementation of the correspondence feature which will expand its network to the village or urban village stage. Even though this feature will be used starting early January 2022.

This feature is the result of updating and evaluating Suratku innovation to be able to receive and send letters to the village level in Kulon Progo Regency. The dissemination of access to SuratKu's innovations has not been optimal until the village or output stage because it is serious in the implementation of SuratKu, namely the implementation of technological guidance for village officials is still not running optimally. This is due to the low knowledge of information technology in village officials. Whereas in early 2022 the mail delivery feature which will be integrated with the village will be implemented.

Referring to this problem, the Department of Communication and Information held technology guidance again on March 28, 2022 with the aim of providing guidance regarding the use of SuratKu and the features possessed by SuratKu that will facilitate correspondence services by instilling an understanding of information technology so that later the officers will get used to using the service. electronic mail. But in reality, even though the latest feature of SuratKu is already able to send and receive letters from the village level, village officials still choose to send letters manually. So that the implementation of SuratKu at the village stage has not run optimally because it still has several obstacles related to the performance pattern of village officials who are still not accustomed to using electronic-based correspondence. In fact, if it runs optimally, the correspondence process will certainly be maximized and the information will also be updated easily. While the implementation of SuratKu within the scope of regional device organizations is still running safely, this is supported by the WhatsApp group aimed at all admins of SuratKu in order to minimize obstacles and as a means of communication in case of technical problems in its operation.

## 4. Trialability

The triability indicator is an innovation that can only be accepted if it passes trials or trials in order to find out the benefits for its users and is expected to provide the best service. An innovation should have passed the results of a public trial in order to find out how the quality of the service if it is implemented. The SuratKu Innovation System itself has carried out the stages trials.



Figure 1. The Implementation of SuratKu Image Training.

Source: Documentation of Diskominfo Kulon Progo Regency, 2022

As the figure above shows, the SuratKu innovation trial has been carried out and was first conducted on July 31, 2019 in the Binangun IV Meeting Room of the Kulon Progo Regency Regional Secretariat. The pilot event was attended by the Head of the Communication and Information Office, the Head of the Technology Application Division, and representatives of Regional Apparatus Organizations. This trial is carried out in order to find out the shortcomings of the SuratKu system and will immediately be followed up to be corrected in accordance with the agreed suggestions. The SuratKu innovation system has been tested for 5 times in order to consider the feasibility of the system that will be used later. Before the innovation of SuratKu was operated, the Department of Communication and Information also conducted training, socialization, and roadshows.

Through the implementation of trials, socialization and training, as well as roadshows, the SuratKu system has officially been implemented, because with these various stages it is possible to know firsthand the conditions, needs and special steps or treatments desired by users in order to provide better mailing services. So that the fourth attribute proposed by Rogers has been carried out well in accordance with the initial goal, namely to facilitate the implementation of mail administration to be more effective, efficient, and support paperless office.

## 5. Observability

Observability has the meaning that how new innovations can produce a better impact and can provide a response that is in accordance with the expectations of the agency as the creator of the innovation. In order to understand the observable attributes of SuratKu's innovations, one must know how the impact or impact resulted from these innovations. The indicator of ease of observation of the innovation of the SuratKu system is very easy to observe with evidence of the facilities available in the system. So that the indicators of ease of observation from SuratKu have been met with features that can make it easier for users to realize better services.

SuratKu's innovation also has a good impact in supporting government policies in supporting smart cities through the application of an electronic-based government system as evidenced by Kulon Progo Regency which received the Movement Towards Smart City 2021 award by the Ministry of Communication and Information of the Republic of Indonesia and was able to increase the SPBE index of Kulon Progo Regency with a score of 3 .36 thighs in 2020 to 4.07 in 2021. This shows that innovation is formed as well as possible according to the existing problems. In accordance with the results of the research obtained by the author, the SuratKu innovation system which is intended for employees in the local organizational environment has been carried out well with the overall achievements achieved in the innovation feasibility study and the attributes/characteristics of service innovation proposed by Rogers.

The SuratKu innovation system has also run in accordance with the expectations of Regent Regulation No. 13 of 2020 which aims to support good governance through the application of an electronic-based system or application of official scripts, which is none

other than SuratKu. In the application and features contained in SuratKu itself also provide benefits in the form of saving resources such as energy, cost, time, and paper because it can reduce the number of letters that must be printed, so that effectiveness and efficiency can be conveyed directly through information technology without relying on the existence of courier. The existence of SuratKu also affects the productivity of correspondence administration work so that it will create an atmosphere or environment that is more coordinated, has integrity, and is communicative between organizational units. So that through the impact or benefits provided by the innovation, SuratKu can support good governance through the use of information technology.

## Conclusion

The SuratKu innovation system, as a form of electronic-based mail administration service innovation between government agencies, can facilitate the process of providing correspondence services effectively and efficiently to support better governance. SuratKu's innovation is proven to minimize the use of time, energy, and budget resources and the use of paper/paperless. However, SuratKu's innovation is faced with classic problems, such as the ability of human resources to operate the application, especially regional apparatus resources at the village level. Therefore, the local government needs to increase the quantity of socialization and the intensity of the quality of technology development to village officials, considering that village resources still do not understand information technology. Overall, SuratKu innovation has a level of efficiency and effectiveness that can support better governance by utilizing electronic-based mail administration services.

### References

- Alfarraj, O., & Alalwan, N. (2016). E-Government Service Delivery by a Local Government Agency:The Case of E-Licensing. TELEMATICS AND INFORMATICS. https://doi.org/10.1016/j.tele.2016.02.003
- Anand, A. (2020). Trust and e-Government Projects An Exploratory Study (S. S.K., D. Y.K., M. B., & R. N.P. (eds.); Vol. 618, pp. 242–251). Springer Science and Business Media Deutschland GmbH. https://doi.org/10.1007/978-3-030-64861-9\_22
- Anastasiadou, M., Santos, V., & Montargil, F. (2021). Which technology to which challenge in democratic governance? An approach using design science research. *Transforming Government: People, Process and Policy*, 15(4), 512–531. https://doi.org/10.1108/TG-03-2020-0045
- Badea, M. (2014). Social Media and Organizational Communication. *Procedia Social and Behavioral Sciences*. https://doi.org/10.1016/j.sbspro.2014.08.192
- Chavez, M., Perez, M., Tunney, C., & Núñez, S. (2017). Accountability and transparency diluted in the Flint water crisis: A case of institutional implosion. *Norteamerica*, 12(1), 11–52. https://doi.org/10.20999/nam.2017.a001
- Cuadrado-Ballesteros, B., Santis, S., & Bisogno, M. (2021). Public-sector Financial Management and E-government: The Role Played by Accounting Systems. *International Journal of Public Administration*. https://doi.org/10.1080/01900692.2020.1868506
- Domalis, G., Karacapilidis, N., Tsakalidis, D., & Giannaros, A. (2021). A Trustable and Interoperable Decentralized Solution for Citizen-Centric and Cross-Border eGovernance: A Conceptual Approach: Vol. 12850 LNCS (S. H.J., G.-G. J.R., J. M., K. E., K. E., L. I., & R. B. M.P.

Copyright © 2022, Ach. Apriyanto Romadhan, Switsa Cellindita, Asep Nurjaman, Iradhad Taqwa Sihidi, Muhammad Kamil

This is an open access article under the CC–BY-SA license

(eds.); pp. 259–270). Springer Science and Business Media Deutschland GmbH. https://doi.org/10.1007/978-3-030-84789-0\_19

Doramia Lumbanraja, A. (2020). Urgensi Transformasi Pelayanan Publik melalui E-Government Pada New Normal dan Reformasi Regulasi Birokrasi. *Administrative Law and Governance Journal*, 3(2), 220–231. https://doi.org/10.14710/alj.v3i2.220-231

Fathur, R., & Mamun, M. (2019). Rancang Bangun Sistem Informasi Manajemen Pegawai (Simpeg) Berbasis Web Pada Kementerian Ppn/Bappenas. IJNS-Indonesian Journal on Networking and Security.

Hayat. (2017). Manajemen Pelayanan Publik. Yogyakarta: PT RajaGrafindo Persada.

Hellmeier, S. (2016). The Dictator's Digital Toolkit: Explaining Variation in Internet Filtering in Authoritarian Regimes. *Politics and Policy*, 44(6), 1158–1191. https://doi.org/10.1111/polp.12189

Heriyanto, H. (2022). Urgensi Penerapan E-Government Dalam Pelayanan Publik. *Musamus Journal of Public Administration*, 1. http://www.ejournal.unmus.ac.id/index.php/fisip/article/view/4128%0Ahttp://www.ejournal.unmus.ac.id/index.php/fisip/article/download/4128/2283

Herold, D. M., Saberi, S., Kouhizadeh, M., & Wilde, S. (2021). Categorizing transaction costs outcomes under uncertainty: a blockchain perspective for government organizations. *Journal of Global Operations and Strategic Sourcing*. https://doi.org/10.1108/JGOSS-09-2021-0066

Hujran, O., Al-Debei, M. M., & Alhawsawi, R. (2021). Potential barriers to the use of social media in the public sector: Lessons from Saudi Arabia. *International Journal of Business Information Systems*, 36(1), 119–143. https://doi.org/10.1504/IJBIS.2021.112397

Irawan, A. (2018). Sistem Pelayanan Publik Berbasis E-Government Pada Pemerintah Daerah Kabupaten Merauke. Unmus, 7(1), 20–37. http://ejournal.unmus.ac.id/index.php/societas/article/view/967/687

Irawan, B. (2013). Studi Analisis Konsep E-Government: Sebuah Paradigma Baru dalam Pelayanan Publik. *Jurnal Paradigma*, 2(1), 174–201.

Khera, R., & Patibandla, V. (2020). Information Technology (IT) and Welfare in India: Does IT work? 284–285. https://doi.org/10.1145/3378393.3402243

Klievink, B., & Cunningham, S. (2016). Big data in the public sector: Uncertainties and readiness. *Information Systems Frontiers, Groenfeldt 2012*. https://doi.org/10.1007/s10796-016-9686-2

Kurniawan, R., & Atmojo, M. E. (2020). Implementasi E-Government Kulon Progo: Inovasi Dinas Kesehatan Melalui Aplikasi BumilKU 2019. *Jurnal Sosial Politik*, 6(2), 142–156. https://doi.org/10.22219/sospol.v6i2.11077

Loilatu, M. J., Irawan, B., Salahudin, S., & Sihidi, I. T. (2021). Analysis of Twitter's Function as a Media communication of Public Transportation. *Jurnal Komunikasi*, 13(1), 54. https://doi.org/10.24912/jk.v13i1.8707

MácHová, R., Volejníková, J., & Lněnička, M. (2018). Impact of E-government Development on the Level of Corruption: Measuring the Effects of Related Indices in Time and Dimensions. Review of Economic Perspectives, 18(2), 99–121. https://doi.org/10.2478/revecp-2018-0006

Madyatmadja, E. D., Dian Sano, A. V, Sianipar, C. P. M., Nindito, H., & Bhaskoro, R. A. (2020). Factors influencing the uses of social media within the government: A systematic literature review. 835–840. https://doi.org/10.1109/ICIMTech50083.2020.9211214

Meidiansyah, I., Antoni, D., & Akbar, M. (2019). Peranan E-Government Dalam Pelayanan Publik Kecamatan Kota Agung (Studi kasus : E-Government Kabupaten lahat). *Jurnal Bina Komputer*, 1(1), 1–11. https://doi.org/10.33557/binakomputer.v1i1.148 Copyright © 2022, Ach. Apriyanto Romadhan, Switsa Cellindita, Asep Nurjaman, Iradhad Taqwa Sihidi, Muhammad Kamil

This is an open access article under the CC–BY-SA license

- Muliawaty, L., & Hendryawan, S. (2020). Peranan E-Government Dalam Pelayanan Publik. *Kebijakan: Jurnal Ilmu Administrasi, 11*(2), 101–112.
- Purnomo, E. P., Loilatu, M. J., Nurmandi, A., Salahudin, Qodir, Z., Sihidi, I. T., & Lutfi, M. (2021). How Public Transportation Use Social Media Platform during Covid-19: Study on Jakarta Public Transportations' Twitter Accounts? Webology, 18(1), 1–19. https://doi.org/10.14704/WEB/V18I1/WEB18001
- Rimapradesi, Y., & Surwandono. (2022). Strategi Kebijakan Pariwisata Pemerintah D. I. Yogyakarta di Era New Normal. *Sospol: Jurnal Sosial Politik*, 8(1), 16–27. https://doi.org/10.22219/jurnalsospol.v8i1.15600
- Rodríguez-Navas, P. M., & Breijo, V. R. (2021). Evaluating and fostering transparency in local administrations. *Analise Social*, 54(233), 828–862. https://doi.org/10.31447/as000032573.2019233.07
- Rogers, E. (2003). Diffussion of Innovation 5th Edition. New York: Free Pass.
- Russo, C., Ghezzi, M., Fiamengo, G., & Benedetti, M. (2014). Benefits sought by citizens in multichannel e-government payment services: Evidence from Italy. *Procedia Social and Behavioral Sciences*, 109, 1261–1276. https://doi.org/10.1016/j.sbspro.2013.12.623
- S, & ari, Yunita Purnama., dan S. (2013). Sistem Informasi Persuratan Pada Dinas Pendidikan Kabupaten Pacitan Berbasis Web. Jurnal IJNS Indonesian Journal on Networking and Security, ISSN: 23.
- Sari, E. P. (2020). Pemanfaatan Surat Elektronik Dalam Kegiatan Korespondensi Oleh Sekretaris Bidang Penyuluhan ,Pelayanan Dan Hubungan Masyarakat Kanwil DJP Jawa Timur 1. Tesis: Universitas Airlangga.
- Sedianingsih, Mustikawati, F. E., & Soetanto, P. N. (2014). Teori dan Praktik Administrasi Kesekretariatan. Bandung: Prenanda Media.
- Sihidi, Iradhad Taqwa, Sugiharto, M. A., & Nurkhanifah, L. (2021). The Effectiveness of Smart City Program Through Batu Among Tani Teknologi (BATT) in Batu City, Indonesia. *Publik* (*Jurnal Ilmu Administrasi*), 10(1), 1. https://doi.org/10.31314/pjia.10.1.1-17.2021
- Sihidi, Iradhat Taqwa, Salahudin, Roziqin, A., & Kurniawan, D. (2022). Twitter as a Communication Tools for Vaccine Policy in Indonesia: An Analysis. Social Computing and Social Media: Design, User Experience and Impact. HCII 2022. https://doi.org/https://doi.org/10.1007/978-3-031-05061-9\_47
- Subarsono. (2011). Analisis Kebijakan Publik: Teori, Konsep, dan Aplikasi. Yogyakarta: Pustaka Pelajar.
- Suharyana, Y. (2017). Implementasi E-Government Untuk Pelayanan Publik di Provinsi Banten. Jurnal Kebijakan Pembangunan Daerah, 1(1), 45–58. https://doi.org/10.37950/jkpd.v1i1.5
- Susianto, D., & Ridhawati, E. (2022). Implementasi E-Government Berbasis Android Untuk Meningkatkan Pelayanan Publik. *Jurnal AL-AZHAR INDONESIA SERI SAINS DAN TEKNOLOGI*, 7(3), 179–186.
- Syaifullah, S., & Widianto, J. (2014). Studi Kelayakan Sistem Informasi Akademik Berbasis Web Pada Poltekes Kemenkes Riau Dengan Menggunakan Metode Kelayakan Telos. *Jurnal Sains Dan Teknologi Industri*.
- Turban, E., McLean, E., & Wetherbe, J. (2000). Information Technology for Management: Transforming Organizations in the Digital Economy. *Information Technology*. https://doi.org/10.1108/09593840010377644
- Walle, Y. M. (2020). The impact of digital government on whistleblowing and whistle-blower protection: Explanatory study. *Journal of Information Technology Management*, 12(1), 1–26. https://doi.org/10.22059/JITM.2019.291003.2409
- Ye, L., & Yang, H. (2020). From digital divide to social inclusion: A tale of mobile platform

Copyright © 2022, Ach. Apriyanto Romadhan, SwitsaISSN 2088-8090 (Print) ISSN 2597-6648 (Online)Cellindita, Asep Nurjaman, Iradhad Taqwa Sihidi,Sospol: Jurnal Sosial PolitikMuhammad KamilVol 8 No 2 (2022), pp.150-168This is an open access article under the CC–BY-SAIcense

empowerment	in	rural	areas.	Sustainability	(Switzerland),	<i>12</i> (6).
https://doi.org/1	10.3390/	<sup>′</sup> su1206242	24			

Zahri, F., & Hasan, E. (2022). Upaya Penerapan E-Government Dalam Peningkatan Pelayanan Publik Di Kota Banda Aceh (Studi Kasus Dinas Sosial Kota Banda Aceh). *Jurnal Ilmiah Mahasiswa Fakultas Ilmu Sosial & ..., 7, 1–20.* http://www.jim.unsyiah.ac.id/FISIP/article/view/19216%0Ahttp://www.jim.unsyiah.ac.id /FISIP/article/download/19216/9208