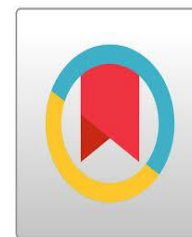# Implementation of Citizen Relation Management (CRM) Applications in The Public Services of The City of North Jakarta in 2023

Penerapan Aplikasi *Citizen Relation Management* (CRM) dalam Pelayanan Publik di Jakarta Utara Tahun 2023

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Keywords	ABSTRACT
Public Service; Citizen Relation Management; Citizen Complaints; North Jakarta;	Public service is a form of activity to fulfill the demands of the served party, namely the community by the serving party, namely the state, which in this case is the government. The increasingly strong globalization accompanied by increasingly sophisticated technological developments forces almost all sectors to follow its development, including public services. Modern and internet-based public services are considered as the government's participation in presenting a form of community service that is in accordance with the times. Citizen Relation Management (CRM) is a form of public service innovation that follows technological developments. Citizen Relation Management (CRM) is an application used as a forum for complaints about problems for the people of DKI Jakarta Province which is connected to 13 complaint channels, some of which can be accessed via cellphone using the internet. This study aims to describe how the implementation of the implementation of Citizen Relation Management (CRM) in public services in North Jakarta in 2023. This research methodology uses a qualitative descriptive method with data collection, namely through documentation, observation, and interviews. The data obtained is then analyzed using the theory of 5 (five) criteria for successful implementation. The results showed that the people of North Jakarta felt that the implementation of Citizen Relation Management (CRM) was very helpful and made it easier for them to complain about a problem because of the availability of various complaint channels, some of which could be accessed directly via cellphone. However, during its implementation in 2023 there were still several obstacles, both from internal officers and from the external community itself.
Kata Kunci	ABSTRAK
Pekerja Informal; Migrasi; Kemiskinan; Eksploitasi;	Pelayanan publik merupakan sebuah bentuk aktivitas pemenuhan tuntutan dari pihak yang dilayani yaitu masyarakat oleh pihak yang melayani yaitu negara yang dalam hal ini adalah pemerintah. Arus globalisasi yang semakin kuat diiringi dengan perkembangan teknologi yang semakin canggih memaksa hampir ke seluruh sector untuk mengikuti perkembangannya, termasuk pelayanan publik. Pelayanan publik yang modern dan berbasis pada internet dianggap sebagai keikutsertaan pemerintah dalam menghadirkan bentuk layanan masyarakat yang sesuai dengan perkembangan zaman. *Citizen Relation Management* (CRM) merupakan sebuah bentuk inovasi pelayanan publik yang mengikuti perkembangan teknologi. *Citizen Relation Management* (CRM) merupakan sebuah aplikasi yang digunakan sebagai wadah aduan permasalahan bagi masyarakat Provinsi DKI Jakarta yang terkoneksi dengan 13 kanal aduan yang beberapa diantaranya dapat diakses melalui *handphone* menggunakan internet. Penelitian ini bertujuan untuk menggambarkan bagaimana pelaksanaan penerapan *Citizen Relation Management* (CRM) pada pelayanan publik di Jakarta Utara tahun 2023. Metodologi penelitian ini menggunakan metode deskriptif kualitatif dengan pengumpulan data yaitu melalui

		dokumentasi, observasi, dan wawancara. Data yang didapatkan kemudian dianalisis menggunakan teori 5 (lima) kriteria keberhasilan penerapan . Hasil penelitian menunjukan bahwa masyarakat Jakarta Utara merasa penerapan *Citizen Relation Management* (CRM) ini sangat membantu dan memudahkan mereka untuk mengadukan suatu permasalahan karena tersedianya berbagai kanal aduan yang beberapanya dapat diakses langsung melalui *handphone*. Meskipun demikian, selama pelaksanaannya pada tahun 2023 masih ditemui beberapa kendala baik itu yang berasal dari internal petugas maupun dari eksternal yaitu masyarakatnya sendiri.
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Introduction

Public service is a service activity both in the form of goods and services carried out by government agencies as a form of fulfilling responsibilities to the needs of the community as well as implementing the provisions of laws and regulations. Public service is also a reflection of the form of democracy that runs in a democratic country because it is a forum that bridges communication between the state, in this case the government and its people. The state as the driving force of a country as well as the holder of power carries out many tasks and functions, one of which is public service. As executors of power, public service providers must be accountable to power holders (Katharina, 2020). There are various forms of public services provided by the state. Currently, in general, in Indonesia the quality of public services is still not good, and this certainly has an impact on the emergence of a crisis of confidence in the community towards the public bureaucracy (Sancoko, 2016).

Public services have long been considered a vital aspect of performance legitimacy for a state, based on the material outputs they provide for citizens (Mcloughlin, 2024). Good public services will also produce good results, one of which is the creation of good governance. Good public services are created by fulfilling the demands of the needs or desires of the community from the government. With the advancement of technological developments today in Indonesia, the government is also required to be able to apply existing technological developments in government activities (Listianto, 2023). Many public service activities in several government agencies currently use information technology services so that information technology services must also have criteria that are in accordance with the vision and mission of the government (Widjajarto et al., 2019). Information and communication technology innovations have influenced citizens' behavior, their information needs, and the way people work and communicate (Gasova & Stofkova, 2017). Digital transformation is considered an effective solution that can help governments improve efficiency in decision-making, optimize resource allocation, and improve the quality and efficiency of public services (Yang et al., 2024). By implementing a digital system, aspects of work effectiveness and efficiency can be further improved (Wibawa, 2020). Advances in technology and science have affected many aspects of human life that were never imagined before (Setyasih, 2022). The internet has had a transformational impact on our society and governments around the world have done various things to improve the efficiency and effectiveness of internal operations of communication with citizens and transactions with organizations with the aim of encouraging the value of implementing or implementing electronic government or e-government (Osman et al., 2019). The digitalization of public

services involves not only the transformation of the relationship between public service providers (in this case the government) and clients or citizens, but also the transformation of public administration work (Andersson et al., 2022).

Based on Law Number 25 of 2009 concerning Public Services, it is stated that public services are activities in the context of fulfilling service activities in accordance with laws and regulations for every citizen and resident for goods, services, and or administrative services organized by public service providers. Reporting from the official Citizen Relation Management (CRM) page, the Citizen Relation Management (CRM) application is a form of development of the previous public complaint application called Cepat Respon Opini Publik (CROP) which was launched in 2014. Then in 2017 through DKI Jakarta Provincial Governor Regulation Number 128 of 2017 the Citizen Relation Management (CRM) application was launched with the aim of increasing the optimization of follow-up of public reports.

This research starts from several previous studies such as research with "Application of Smart Cities through Citizen Relation Management in Public Services". written by Arsya Putri Cahyani, Samsul Ode, and Dewi Maria Herwati. In this study, the researchers discussed the application of Citizen Relation Management (CRM) which was born as a form of implementing smart cities or smart cities in conducting public services. In the study, researchers were guided by 5 (five) criteria to assess the success of implementing a program or policy (Hardjanti, 2009). The study stated that the implementation of smart cities through the Citizen Relation Management (CRM) application has been running quite well because all of these criteria have been met even though there are still some obstacles in its implementation. The research also revealed that Technical Guidance should be carried out to each officer implementing the Citizen Relation Management (CRM) application to facilitate the implementation of public services through the application.

The next previous research on the Citizen Relation Management (CRM) application is research written by Farhan Dwi Listianto on "Implementation of Citizen Relation Management (CRM) Applications in Improving Public Services at the DKI Jakarta Provincial Informatics and Statistics Communication Office". In this study, it is stated that the application of public services in the Citizen Relation Management (CRM) application is quite optimal even though there are still obstacles in its application. These obstacles include application notifications that often do not appear, reports that are not completed because people are still unfamiliar with using the application, and there are reports that are wrongly dispositioned because apparatus still do not understand the regulations which result in long

reports being resolved. In this study, it is mentioned that the Communication Informatics and Statistics Office of DKI Jakarta Province made several efforts in dealing with this obstacle, namely adding several features in the Citizen Relation Management (CRM) application such as the wrong disposition feature, ticketing feature, and validation and verification features. The Communication Informatics and Statistics Office of DKI Jakarta Province is also aggressively socializing to the officers who are responsible for it.

The next previous research on the Citizen Relation Management (CRM) application is research written by Putra Amin Amatulloh and Retnowati WD Tuti on "Evaluation of Public Complaint Handling through Citizen Relation Management Applications in DKI Jakarta". In this study, it is stated that the DKI Jakarta Provincial Government has done several things to improve the quality of handling public complaints, such as conducting more in-depth socialization to the public regarding complaint channels that can be used, building a positive perception or mindset towards each officer apparatus so that the handling of complaints is of higher quality, and developing systems and application features so that each agency can work together in following up every complaint from the incoming community.

The next previous research on the Citizen Relation Management (CRM) application is a study written by Ria Handayani entitled "Evaluation of Citizen Relation Management (CRM) Application Wisdom in Successful Jakarta Smart City". This study states that in an effort to support the implementation of Smart Government, the implementation of the Citizen Relation Management (CRM) application has been running quite effectively. The DKI Provincial Government has succeeded in shortening the public complaint service with the application which is connected to 13 complaint channels. However, in its implementation there are still several obstacles such as the presence of human resources who are less competent in following up on public complaints, as well as the absence of control or supervision carried out by third parties on the results of the settlement or follow-up carried out by the relevant Regional Work Units.

The next previous research related to the Citizen Relation Management (CRM) application is a study entitled "The Effectiveness of Citizen Relation Management (CRM) in the Implementation of Handling Public Complaints in the East Jakarta Administrative City Region in 2021" written by Nadea Rahmadani Azzahra and Ainun Nazriah. According to this study, it is stated that the Citizen Relation Management (CRM) application in East Jakarta is quite effective and has run according to its purpose. Most people are also aware of this application and they have started using the application to report complaints. The implementation of digital government has gone through several policy and implementation

paradigms (Mergel, 2019). Every government policy must consider policies and people, so that policymakers can gain insight into citizen behavior by understanding their attitudes towards adopting e-government services (Iong & Phillips, 2023). The government needs to modernize management, reorganize organizations, develop leadership models, anticipate industry changes, and prepare people for modern life based on information technology (Wasistiono, 2019). The implementation of this application is supported by human resources who already understand technology so that it does not hinder the implementation of follow-up. While the obstacles that occur when implementing this application are such as reports that are unclear or have no information, people who are not serious in making reports or just playing around, to bad weather that affects the internet network because this application is based online.

Based on this previous research, it can be concluded that previous research has discussed more about the implementation of public complaints through Citizen Relation Management (CRM), which in its scope is DKI Jakarta Province as a whole and East Jakarta Administrative City only. So that the research on the Implementation of Citizen Relation Management (CRM) Applications in Public Services in North Jakarta in 2023 is the latest research that has not been done much and focuses on the results of its implementation in North Jakarta in 2023 which is researched through two points of view, namely the DKI Jakarta government as the implementer and the people of North Jakarta as the target of policy implementation.

The study conducted in this research is to try to reveal how the implementation of public services through Citizen Relation Management (CRM) carried out by the North Jakarta Administrative City Government in 2023. If the socialization carried out by the government as the program implementer is less effective, the results obtained from the implementation of Citizen Relation Management (CRM) will also be less good. However, if the implementation of Citizen Relation Management (CRM) is carried out optimally, the result obtained is a successful policy implementation.

Jakarta and its buffer zone today look like a huge, disorganized mass of concrete, asphalt, vehicles and people (Martinez & Masron, 2020). Public organizations, such as local governments, sustain the social fabric of the city (Senadheera et al., 2024). In North Jakarta with a population of more than 1.7 million in 2022, it can increase the potential for high social problems. This is because the higher population will increase the density in one living space which will cause various problems (Christiani et al., n.d.; Danila & Abdullah, 2014). Unmet life needs are often the cause of conflict (Sabiq & Nurwati, 2021). The increasing

socioeconomic challenges of urban life affect how city dwellers interact with each other, shaping their daily behaviors as interconnected urban communities (Amir et al., 2023). As the fourth most populous country in the world, Indonesia's population growth rate is expected to remain high (Muzayanah et al., 2022). High human population density and the built environment are permanent urban characteristics that distinguish rural and wild land characteristics with low human density and associated buildings (Hanberry, 2022). Reporting from the official website of Jakarta Smart City, one of the objectives of the establishment of the Citizen Relation Management (CRM) application is to accelerate the process of following up on complaints of problems from the community. Various parties, including government agencies, must dig deeper and explore related to strengthening digitalization technology (Han & Zhang, 2024). The implementation of government digitization is expected to improve the efficiency of government implementation and solve public problems in increasingly turbulent times (Yuan et al., 2023). Information and communication technology can be empowered to help the public administration system face challenges and problems more easily (Zou et al., 2023). For this reason, the urgency of research on this Citizen Relation Management (CRM) application is needed to find out how far this application can be applied to handle complaints of problems from the community in the North Jakarta Administrative City in 2023 and how helpful this policy is to become a forum for complaints from the people of North Jakarta so it is worth researching because it involves the implementation of democracy between the government and its citizens.

E-government is a paradigm shift in government management based on Information and Communication Technology (Hernández et al., 2024). E-government involves integrating information and communication technologies into government processes to improve efficiency (Afieroho et al., 2023). E-government is a global project that uses information and communication technologies to deliver services, with the aim of improving public interaction and encouraging open innovation (Thi Uyen Nguyen et al., 2024). Government services based on electronic technological advances or e-government are created to streamline administrative processes and increase citizen engagement on the one hand, and also to build a new governance model that will involve the public in the decision-making process, and on the other hand also increase transparency (Hashim, 2024). Digital government is a reflection of the implementation of modern government towards the potential of technological improvements that impact administrative efficiency and citizen engagement (Jurišić & Bogataj, 2024). The application and use of e-government is currently a concern for all government administrations around the world, from developed to

developing countries (Nzaramyimana & Susanto, 2019). With the increasingly vigorous implementation of digitization of government systems in a city, it will make the city a modern city or smart city. Citizens inhabit smart cities and are the ones who should use the services provided by the government (Axelsson et al., 2024).
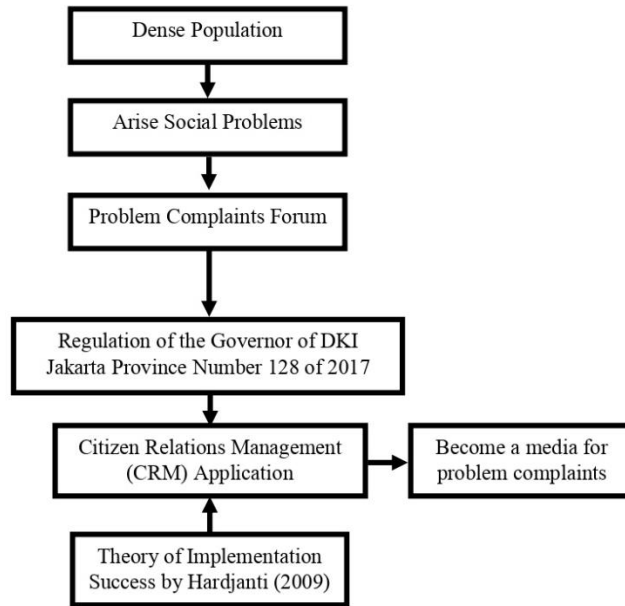
In the digital era, e-government services have become an important tool to encourage open innovation and improve public welfare (Uyen Nguyen et al., 2024). In the last five years, DKI Jakarta has improved its services through the concept of smart city (Sitinjak et al., 2018). The Citizen Relation Management (CRM) application is a reflection of public services that apply technological advances well. This is because the Citizen Relation Management (CRM) application allows the user community to make complaints or reports related to problems in their environment to the government and then follow up easily because it can be done anywhere via a smartphone owned by each community. Social influence, convenience conditions, and usage intentions play an important role in facilitating actual community usage behavior (Guo, 2024). Innovation in e-government is a constant as the government makes incremental changes in its application and expansion to more areas and government operations (Turner et al., 2022). The presence of the Citizen Relation Management (CRM) application is also a good thing for the running of the democratic system in DKI Jakarta, especially in the North Jakarta Administrative City area which should also be emulated and implemented by the government from other regions.

Citizen Relation Management (CRM) application is an application that can be used by the community to make complaints and collect reports and complaints from the community regarding various social problems that occur. People from any background can make complaints without being bound by groups. This type of complaint service user cannot be verified and the provider will get higher benefits from one type of service user (Halonen-Akatwijuka & Propper, 2024). E-government service users are citizens who communicate and interact continuously with the government and also with other citizens who may use the service (Susanto & Aljoza, 2015). DKI Jakarta as the capital of the country as well as the largest metropolitan city that has the densest population in Indonesia certainly has a myriad of social problems. Social problems that often occur in the midst of community life often trigger social conflicts because there are parties who are disadvantaged because their rights are not fulfilled. one of the problems that often occurs in Jakarta is the problem of accumulated garbage, damaged roads, flooding, vandalism, and so on. Social problems that occur are the responsibility of the government as an actor who regulates the course of people's lives. Reporting from the *crm.jakarta.go.id* page, which is the official page of

Citizen Relation Management (CRM), the Citizen Relation Management (CRM) application is a form of development of the public complaint system by the Provincial Government of the Special Capital Region of Jakarta from what was previously called Respon Opini Publik (ROP) then in 2014 it changed to Cepat Respon Opini Publik (CROP) which at that time was integrated with the Qlue application, until in 2017 the Citizen Relation Management (CRM) application was formed through DKI Jakarta Provincial Governor Regulation Number 128 of 2017.

Based on pre-research observations at the North Jakarta KKPP Section in 2023, this application was made with the aim of accommodating public complaints related to problems that occur so that the follow-up system can be clearly organized and can be used by anyone to report or complain about problems that exist in all areas under the responsibility of DKI Jakarta Province, namely West Jakarta Administrative City, North Jakarta Administrative City, East Jakarta Administrative City, Central Jakarta Administrative City, South Jakarta Administrative City, and Thousand Islands Regency. Based on the background above, the purpose of this study is to determine the extent to which the Citizen Relation Management (CRM) application is implemented in the implementation of public services in North Jakarta in 2023.

In this research, the author uses a theory that reveals that to assess the success of a policy implementation there are 5 (five) criteria, namely achieving goals or results, efficiency, target group satisfaction, client responsiveness, and maintenance systems (Hardjanti, 2009). Achieving Goals or Results means that a policy or program is made to achieve the desired goals. If the results of a policy cannot be measured, felt, or observed and enjoyed directly by the community, then the policy cannot be said to be successful. The efficiency of a program is not only related to the money spent, but also related to the quality of the program, the time of the program and the resources used. Target Group Satisfaction very determines the success of a policy because then it can be interpreted that the implemented policy produces a good impact on the target group. The existence of a positive Client Responsiveness reflects that the implementation of the policy is welcomed by the community so that it will create a sense of ownership of the policy. The Maintenance System is needed because the results achieved must be properly maintained and maintained in order to create consistency of good values and can be used as a reference for improving better results in the future. Based on the introduction and background above, the framework for thinking in this study is as follows:

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│     Dense Population     │
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│   Arise Social Problems  │
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│ Problem Complaints Forum │
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│  Regulation of the Governor of DKI │
│  Jakarta Province Number 128 of 2017 │
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┌─────────────────────────┐      ┌─────────────────────┐
│ Citizen Relations Management │─────▶│  Become a media for  │
│      (CRM) Application     │      │  problem complaints  │
└─────────────────────────┘      └─────────────────────┘
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│ Theory of Implementation │
│ Success by Hardjanti (2009) │
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Method

The method used in this research is the descriptive qualitative method, in which this research is carried out by direct observation of the phenomenon or problem that occurs. The research was conducted in the Personnel, Management and Public Services Section of the Mayor of the North Jakarta Administrative City (North Jakarta KKPP Section) as well as several North Jakarta communities.

Researchers collected data through documentation, observation, and interviews. Documentation is done by collecting documents related to the main topic of research, namely Citizen Relation Management (CRM) applications such as regulations, legal basis, and other documents related to the main topic of research. Observation was carried out during the researcher's internship at the research location by directly observing the making of the Citizen Relation Management (CRM) report which was made every month. Interviews were conducted with Ms. Novilia Nurhidayati as Head of the Public Service Sub Group of the North Jakarta City Secretariat and Mr. Rachmad Fauzie as the implementer of the Public Service of the North Jakarta City Secretariat. In addition, researchers also interviewed several North Jakarta residents who had made complaints using the Citizen Relation Management (CRM) application to find out the extent to which this application can be used as a forum for collecting public complaints. The selection of informants from the community was carried out by going directly to the field to find people who had made complaints. In addition, the author also conducted interviews with people who made complaints through social media complaint channels, namely Twitter by randomly searching for reporters based on complaints uploaded on Twitter. Citizen Relation Management (CRM) report data has a

very high validity value because the report data taken here is a report that has completed its follow-up and the report data is inputted and reports are made every month.

Data analysis in this study uses the Miles and Huberman model, where data analysis is carried out through 3 (three) stages: data reduction, data presentation, and conclusion drawing. Data reduction is the process of selecting and simplifying data from the information obtained in the field to ensure that the data meets the requirements. After undergoing the reduction stage, the selected data can then be presented. Data can be presented in the form of graphs, matrices, networks, or charts. The conclusion drawing process can be conducted when the variative data has been simplified and displayed using certain media, making the presented data easy to understand. Conclusion drawing in a study is placed in the closing section, specifically in the conclusion section.

Result and Discussion

The government, as a regulator or the party leading the governance of a region, has the right and obligation to regulate policies related to the lives of its citizens. One of the policies regulated by the government concerns innovations in public service systems that are increasingly sophisticated. With the rapid development of globalization allowing most Indonesians to access the internet easily, the government is demanded to keep advancing by presenting policies that keep pace with technological developments. The government increasingly incorporates e-government as an important aspect of their interaction with citizens and the provision of public services (Chan et al., 2021). The ultimate goal of e-government is to enable the government to provide services to its citizens and decision-makers efficiently and cost-effectively (Al-Besher & Kumar, 2022). One form of government policy that follows technological advancements is by introducing policy innovations that use the internet. Specifically, as public services transition from offline to online, online e-government service platforms can enrich the delivery of public services (Sharma et al., 2021) and function as a new bridge connecting the government and citizens (Chan et al., 2021), which ultimately leads to good governance (Chen & Chen, 2024). One of the government policy innovations that use the internet is the Citizen Relation Management (CRM) application.

The Citizen Relation Management (CRM) application is an initiative launched by the DKI Jakarta Provincial Government in 2017 through the DKI Jakarta Provincial Governor Regulation Number 128 of 2017, aimed at facilitating the public in reporting issues that arise so that follow-up can be conducted by the relevant parties. User-centered e-government

influences the foundation of public service delivery and requires a careful balance between values introduced by user centrality and established public values (Weigl et al., 2024). The Citizen Relation Management (CRM) application is a development of a previous public complaint application called the Cepat Respon Opini Publik(CROP).

The Citizen Relation Management (CRM) application represents a modernization of public services owned by the DKI Jakarta Provincial Government. The Citizen Relation Management (CRM) application can be used to report all types of issues that fall within the jurisdiction of the DKI Jakarta Province, namely North Jakarta Administrative City, East Jakarta Administrative City, West Jakarta Administrative City, South Jakarta Administrative City, Central Jakarta Administrative City, and the Thousand Islands Regency. With its status as the province with the highest population density in Indonesia, DKI Jakarta clearly faces a myriad of problems and urgently needs policies that can address these issues.

The Citizen Relation Management (CRM) application serves as an excellent policy breakthrough to be applied in a region with many problems. In North Jakarta Administrative City, based on data from the Central Statistics Agency, the population exceeds 1.7 million in 2022. With such a high population, the number of issues occurring is also high, making the Citizen Relation Management (CRM) application very suitable for implementation in North Jakarta to resolve the issues present in that area. The Citizen Relation Management (CRM) application is not just an ordinary application that the public can use to report or complain. However, in its implementation, the follow-up on reports submitted through the application is also integrated with the Regional Performance Allowance, requiring officials to act more professionally and responsibly in handling cases. To make a complaint through the Citizen Relation Management (CRM), the public has 13 complaint channels available, including via the JAKI (Jakarta Kini) application, Twitter (@dkijakarta), Facebook (Pemprov DKI Jakarta), Electronic Mail/Email (dki@jakarta.go.id), Personal Social Media of the Governor/Deputy Governor, Short Message Services/SMS (0811272206), Complaint Reception at the Balai Kota reception room, Inspectorate Office, Mayor's Office, Sub-district Office, Village Office, Mass Media Public Aspirations, and LAPOR 1708. After submitting a complaint through the Citizen Relation Management (CRM), the public can monitor the developments or progress of the follow-up on their report directly through the official Citizen Relation Management (CRM) website at crm.jakarta.go.id or can also monitor it through the JAKI application by entering the report number received.
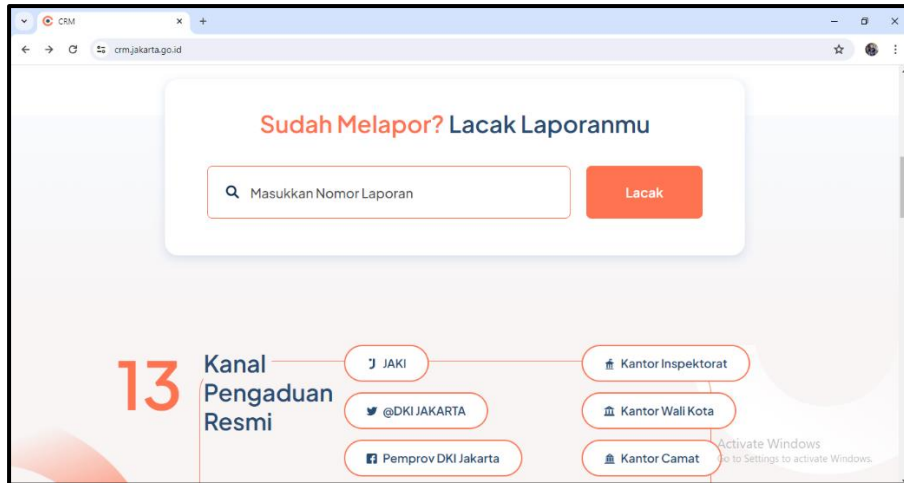
Figure 1: The Track Report Column on the Citizen Relation Management (CRM) Website

Source: www.crm.jakarta.go.id

On the website, users can also access data related to the number of reports or complaints submitted since the Citizen Relation Management (CRM) system was first established. This demonstrates that the management of incoming reports is transparent and accessible to the general public. Digital transparency refers to the creation of transparency by opening up data and providing functionality for processing data using all types of websites (Matheus et al., 2023). Specifically, the quality of service content refers to the functions available on government websites, while the quality of service delivery reflects the technology that supports these service functions (Li & Shang, 2020). When filing a complaint, in addition to public reports, citizens can also use the privacy report feature, which allows individuals to report an issue anonymously without revealing their identity. This increases user comfort when submitting complaints, as the anonymity ensures the protection of the reporter's privacy rights.
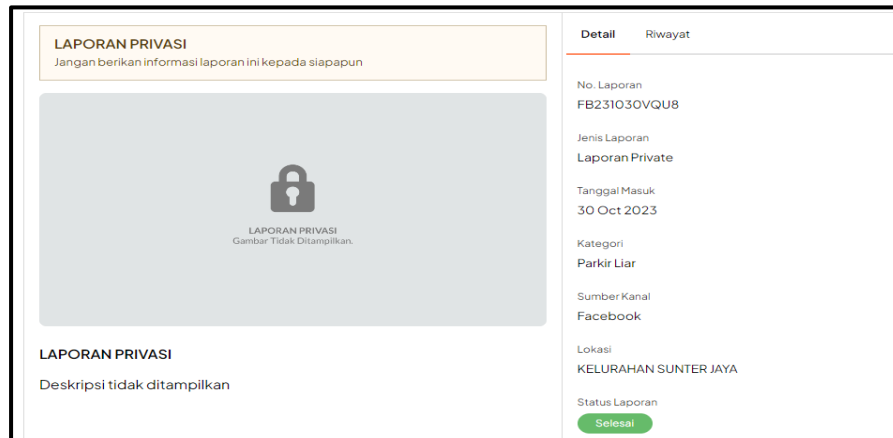
Figure 2: Privacy Report Display on the Citizen Relation Management (CRM) Website
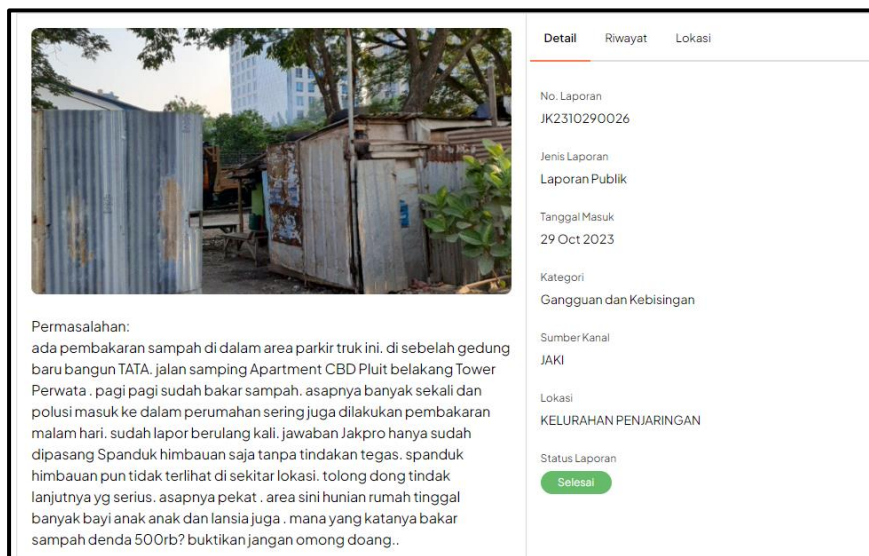
Source: www.crm.jakarta.go.id

Figure 3: Public Report Display on the Citizen Relation Management (CRM) Website

Source: www.crm.jakarta.go.id

In its implementation in North Jakarta, the Citizen Relation Management (CRM) application covers six districts and 31 sub-districts. The application of the Citizen Relation Management (CRM) system in North Jakarta is coordinated by the Personnel, Administrative, and Public Services Division of the North Jakarta City Secretariat. The implementation of the Citizen Relation Management (CRM) application is reported once a month. These reports include the number of incoming reports within the month, the percentage of performance achievement in handling cases, the Regional Work Units with the highest number of complaints, the most common categories of complaints, the sub-district with the fastest response time, and the sub-district with the slowest response time.

The number of reports received through the Citizen Relation Management (CRM) application in 2023 was inconsistent during the first semester. However, during the second semester, the number of incoming reports steadily increased until the end of the year. Meanwhile, the percentage of performance achievement in handling CRM reports remained consistently above 99% each quarter. The following is a graph showing the number of CRM reports received each month throughout 2023, along with the percentage of performance achievement in addressing complaints in 2023. This data was obtained from the Personnel, Administrative, and Public Services Division of the North Jakarta City Secretariat, which serves as the coordinator for the implementation of the Citizen Relation Management (CRM) system in North Jakarta.
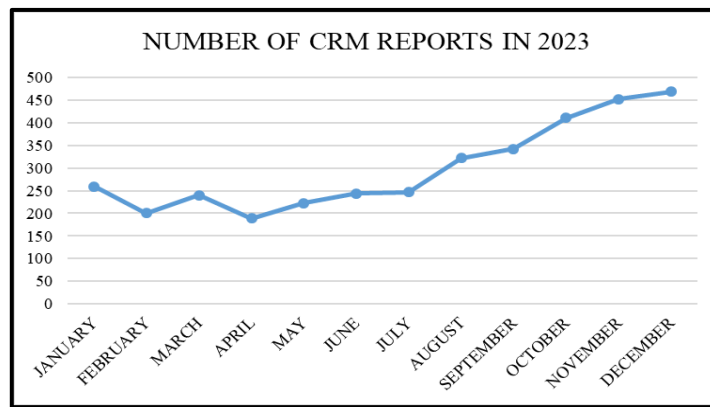
Graph 1: Number of Citizen Relation Management (CRM) Reports in 2023

Source: Personnel, Administrative, and Public Services Division (KKPP Section) of North Jakarta
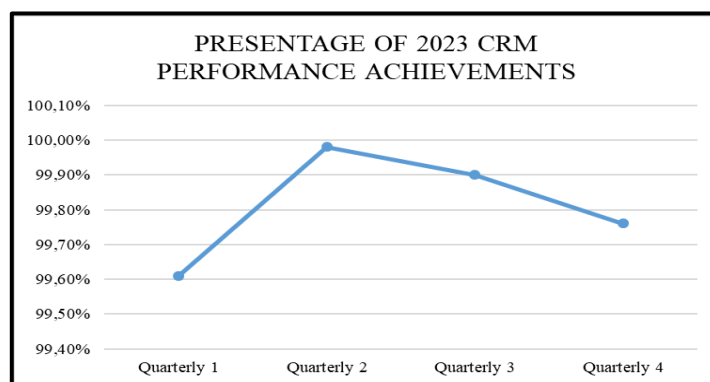
Graph 2: Performance Achievement Percentage of Citizen Relation Management (CRM) in 2023

Source: Personnel, Administrative, and Public Services Division (KKPP Section) of North Jakarta

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Hardjanti (2009) stated that there are five criteria for measuring the success of policy implementation: goal or outcome achievement, efficiency, target group satisfaction, client responsiveness, and system maintenance.

Goal or Outcome Achievement

A policy created by regulators or policymakers, in this case the government, always has a specific goal that serves as the reason for its formulation. The outcomes of the policy's implementation must be measurable, tangible, observable, and directly experienced by the community targeted by the policy. If these outcomes cannot be perceived by the community, the policy implementation cannot be deemed successful, and the objectives of the policy remain unfulfilled.

According to the Personnel, Administrative, and Public Services Division of the North Jakarta City Secretariat, the implementation of Citizen Relation Management (CRM) in North Jakarta in 2023 recorded a total of 3,591 complaints submitted through 13 complaint channels. For the 2023 implementation of Citizen Relation Management (CRM), the North Jakarta City Administration targeted the resolution of all incoming complaints, aiming for a performance achievement rate of 100%, as stipulated in the Decree of the Regional Secretariat of DKI Jakarta Province No. 99 of 2022. However, the performance achievement rate in handling public complaints in 2023 was recorded at 99.81%. This was due to some complaints being delayed in response by the relevant Regional Work Units, which resulted in the performance achievement rate falling short of 100% completion.

Based on interviews conducted by the author, a portion of North Jakarta residents believe that the purpose of implementing Citizen Relation Management (CRM) is to make it easier for the public to file complaints. In 2023, its implementation in North Jakarta was considered satisfactory. According to residents who have submitted complaints through the JAKI application, this is largely due to the availability of various complaint channels, many of which can be accessed via personal mobile phones, such as the JAKI application. This ease of access has made it very convenient for people to report issues. Digital governance, or e-government, is considered a useful tool to promote greater citizen engagement in democratic processes (Danila & Abdullah, 2014). Additionally, the limited response time for complaints ensures quicker follow-ups, and the progress of these follow-ups can also be directly monitored by the public through the official Citizen Relation Management (CRM) website.

On the other hand, residents who submitted complaints through the Twitter complaint channel, specifically via the @DKIJakarta account, expressed dissatisfaction with the Citizen Relation Management (CRM) service on Twitter, stating that it is still suboptimal and has not yet fully achieved the intended objectives of the CRM system. This is because complaints made through the Twitter channel are still manually handled by the account's admin, leading to frequent issues such as unresponded complaints that need to be resubmitted, the lack of an automatic location detection feature (as available in the JAKI application), which forces the Twitter admin to continuously coordinate with complainants, and other challenges.

Efficiency

Efficiency refers to efforts to transform a routine or process into something easier to perform and use. In this context, efficiency is not only related to the costs incurred but also includes the quality of program implementation, the time required for execution, and the resources used in carrying out the program. The follow-up to public complaints is based on the Decree of the Regional Secretariat of DKI Jakarta Province No. 99 of 2022 concerning Guidelines for Public Service Follow-Ups through the Citizen Relation Management (CRM) application. This decree regulates all forms and categories of complaints and specifies the maximum time allowed for follow-up actions. If the follow-up exceeds the allocated time, penalties will be imposed on the agency responsible for handling the complaint.

With the availability of various complaint channels, including social media and online systems, the public can now easily submit complaints using their mobile phones anytime and anywhere, 24 hours a day, without needing to visit government offices such as sub-district, district, or municipal offices. Each Regional Work Unit (UKPD) has an admin responsible for managing and overseeing the complaints related to their jurisdiction. These admins are required to respond to public complaints submitted through all available channels within six hours.

According to North Jakarta residents, the Citizen Relation Management (CRM) system is highly efficient for those who do not have much free time to visit government offices to report problems or file complaints. With the Citizen Relation Management (CRM) system, busy individuals can still submit complaints using their mobile phones, eliminating any excuses for not reporting or addressing issues when they arise. Meanwhile, residents who filed complaints through the Twitter channel consider the Citizen Relation Management

(CRM) system to be fairly efficient, although some complaints went unanswered, and others had to be resubmitted multiple times.

Target Group Satisfaction

The implementation of any policy inherently has a target group that it aims to address. The target group of the Citizen Relation Management (CRM) application is the residents of DKI Jakarta Province, with this study specifically focusing on North Jakarta Administrative City. The satisfaction of the target group is a crucial factor in determining the success of a policy, as it indicates that the implemented policy has created positive impacts on the intended audience.

One positive impact experienced by the public through the Citizen Relation Management (CRM) system is the ability to report issues in their surroundings in real-time using their mobile phones to any of the 13 complaint channels provided, several of which are accessible online. For instance, if there is an accumulation of garbage in the community, whether in rivers, drains, or other areas, residents no longer need to travel far to a government office to file a complaint. Instead, they can report the issue via their mobile phones, and the complaint will be directly forwarded to the relevant Regional Work Unit. Within less than six hours, the appropriate personnel will arrive to address the complaint, ensuring that no garbage remains piled up.

Another positive impact experienced by the public is the availability of online complaint channels, which allows citizens to report issues in real time, ensuring that their complaints reach the government more quickly. This, in turn, accelerates the process of following up on those complaints. Additionally, citizens can track the progress of their reports through the official Citizen Relation Management (CRM) channels by entering the report number provided to them after submitting a complaint. This transparency allows the public to monitor the status of their complaints until the reported issue is resolved.

Based on interviews conducted with several North Jakarta residents who had submitted complaints or reported issues through the Citizen Relation Management (CRM) application—whether via the JAKI application or the Twitter social media channel—they expressed satisfaction with the public complaint policy implemented through the CRM system. They appreciated the variety of channels available for submitting complaints.

According to the Personnel, Administrative, and Public Services Division of the North Jakarta City Secretariat, the public generally felt greatly assisted and highly satisfied with the handling of complaints throughout 2023. This is evidenced by a performance

achievement rate of 99.81%, meaning nearly 100% of the complaints submitted by residents were addressed by the North Jakarta City Administration. Furthermore, this satisfaction is supported by the results of the Public Satisfaction Survey, in which the average score across all indicators was 4, indicating a very high level of service quality.

Client Responsiveness

In the implementation of a policy, the public acts as the client or the party served by the government as the regulator. Positive responsiveness indicates that the policy implementation is well-received by the public, fostering a sense of ownership of the policy within the community.

In general, residents of North Jakarta have responded positively to the implementation of the Citizen Relation Management (CRM) system. This is because the CRM system makes it easier to address issues in the community, such as scattered trash, illegal speed bumps, or illegal parking. Residents feel supported by the CRM system because it ensures that any type of issue they report can be followed up on by the government. This positive reception is also reflected in the enthusiasm of North Jakarta residents, with more than 100 complaints submitted each month.

According to the Personnel, Administrative, and Public Services Division of the North Jakarta City Secretariat, residents of North Jakarta consider the CRM system to be an appropriate policy for serving as a platform for their complaints. This is because they can easily submit reports, and the follow-up process can be tracked independently through the official Citizen Relation Management (CRM) website by entering the ticket number provided to the reporter after submitting their complaint. Moreover, the government, as the primary executor of the Citizen Relation Management (CRM) system, also listens to feedback from the public. As a result, improvements are often made each year, including the addition of new features based on community requests.

Residents of North Jakarta have warmly welcomed the introduction and implementation of the Citizen Relation Management (CRM) application. They view it as an innovative solution that eliminates the need for them to physically visit government offices to submit complaints. Instead, they can report issues directly from the scene using their mobile phones. This has significantly simplified the process and benefited the community.

North Jakarta residents also believe that the Citizen Relation Management (CRM) system is a highly appropriate policy for a region like DKI Jakarta Province, particularly North Jakarta Administrative City, which faces a multitude of challenges. They appreciate

having a well-structured and reliable platform to file complaints. Additionally, the transparent handling of complaints, with progress updates provided at each stage to the reporter, reflects the government's commitment to transparency, honesty, and seriousness in serving its citizens.

System Maintenance

Once a policy is successfully implemented, the outcomes of that implementation will begin to emerge. These achievements must be consistently maintained and preserved to ensure the continuity of positive results and serve as a reference for further improvements to achieve even better outcomes in the future.

According to the Personnel, Administrative, and Public Services Division of the North Jakarta City Secretariat, the performance achievement rate for following up on public complaints through the Citizen Relation Management (CRM) system has reached 99.81%. This indicates that the North Jakarta City Administration has performed exceptionally well and remained focused on addressing and following up on incoming public complaints. The implementation of the Citizen Relation Management (CRM) system has also been a key priority for leadership, from the city level to the provincial level in DKI Jakarta.

To sustain this level of performance, the North Jakarta City Administration regularly conducts coordination meetings for monitoring and evaluating the follow-up of public complaints through the Citizen Relation Management (CRM) application every three months or quarterly. The North Jakarta City Administration also consistently advises and reminds its subordinate Regional Work Units, such as sub-districts and urban villages, to coordinate effectively to ensure that public complaints are responded to within the specified time frame. The North Jakarta City Administration pays close attention to the implementation of the Citizen Relation Management (CRM) system as it is one of the key targets of the mayor in managing public complaints.

In the implementation of any policy, challenges are inevitable. The challenges encountered during the implementation of Citizen Relation Management (CRM) in 2023 included some Regional Work Units responding to complaints beyond the maximum response time of six hours. This time is calculated from when the complaint is received in the Regional Work Units account until the admin either disposes of the report, coordinates with relevant parties, or uses the ticketing feature in the Citizen Relation Management (CRM) application. One example is using the estimated completion time feature, which allows the extension of the follow-up period for complaints that require more time due to

higher complexity. For instance, complaints about potholes require more time as they involve coordination with relevant Regional Work Units and budget allocation to resolve the issue.

Another challenge faced during the implementation of Citizen Relation Management (CRM) in 2023 was the submission of prank or non-serious complaints by some members of the public. This issue was identified during coordination meetings held for monitoring and evaluation, where such reports were found to be fabricated or submitted merely for amusement. Additionally, a technical challenge encountered was occasional system errors. However, this did not pose a major issue as the North Jakarta City Administration maintained consistent coordination with various stakeholders, especially the DKI Jakarta Provincial Communication and Information Technology Agency, which is responsible for addressing such problems.

As for the challenges faced by North Jakarta residents when submitting complaints through the JAKI application, they reported no significant issues so far. However, residents who submitted complaints through the Twitter complaint channel encountered some challenges. These included the need for complainants to manually include a detailed address, often requiring a search on Google Maps. Additionally, the follow-up actions by field officers were sometimes deemed inaccurate, as evidenced by follow-up photos showing a different location from the address provided by the complainant.

To address these challenges, the North Jakarta City Administration continuously collaborates and coordinates with various parties, such as urban villages, sub-districts, and the provincial government. This collaboration is crucial for ensuring the efficiency of complaint handling, both in terms of response time and the accuracy of follow-up actions for public complaints. During quarterly coordination meetings, reminders are consistently communicated to each Citizen Relation Management (CRM) admin, both at the urban village and sub-district levels, to focus more and respond more quickly to complaints in their respective areas every month.

Conclusion

Based on the findings of this study regarding the implementation of the Citizen Relation Management (CRM) application in public services in North Jakarta in 2023, and in line with the research focus using the theory of five criteria for successful implementation—namely, goal or outcome achievement, efficiency, target group satisfaction, client responsiveness, and system maintenance—the following conclusions can be drawn: The

implementation of the Citizen Relation Management (CRM) application in public service delivery in North Jakarta in 2023 has been quite successful. This is evidenced by the consistently high performance achievement rate of complaint handling, which remained above 99% each quarter, with a total achievement rate of 99.81% for 2023. Additionally, public enthusiasm for reporting or filing complaints when encountering problems in their surroundings was relatively high. This is demonstrated by the fact that more than 100 complaints were submitted each month, with the number of complaints steadily increasing from the second quarter to the fourth quarter of 2023. Residents of North Jakarta consider the Citizen Relation Management (CRM) system to be highly efficient. The availability of various complaint channels, several of which can be directly accessed by individuals using their mobile phones, has made the complaint process between the public and the government more straightforward and modern.

With the implementation of Citizen Relation Management (CRM), the public feels satisfied because the availability of online complaint channels allows reports to be submitted more quickly to the relevant officials, enabling faster follow-up actions. Residents also feel supported by the CRM system, as any issue reported will be addressed by the government within less than six hours. Furthermore, the public can directly monitor the follow-up process through the official Citizen Relation Management (CRM) website or portal by entering the report number provided after submitting their complaint. With a total performance achievement rate of 99.81% in handling public complaints in 2023, this demonstrates the North Jakarta City Administration's strong commitment to addressing complaints submitted by the public. To maintain this level of success, the North Jakarta City Administration regularly holds coordination meetings for monitoring and evaluating complaint handling every three months or quarterly. The administration also consistently encourages its subordinate Regional Work Units to continue collaborating and coordinating effectively to ensure that public service delivery through the Citizen Relation Management (CRM) application becomes increasingly optimal.

The challenges faced during the implementation of Citizen Relation Management (CRM) in 2023 included some members of the public misusing the system by submitting non-serious reports and occasional system errors, though these did not cause significant problems. On the other hand, the challenges faced by the public were mainly related to the Twitter complaint channel, where complainants were required to provide highly detailed locations for their complaints. Additionally, complaints often went unanswered by the

Twitter admin, requiring them to be resubmitted, and follow-up actions sometimes took place at locations that did not match those reported.

To address these challenges, during coordination meetings for monitoring and evaluating complaint handling, the North Jakarta City Administration consistently reminds all relevant parties to focus more and respond more quickly to complaints submitted within their respective jurisdictions every month. Therefore, as a researcher, I recommend that future studies improve upon this research by conducting more in-depth studies on the implementation of Citizen Relation Management (CRM) in public services in North Jakarta. These studies should aim to explore deeper insights and incorporate updated theories that can refine the current and previous research.

Acknowledgements

References

Afieroho, P., Perkins, R., Zhou, X. (Thomas), Hoanca, B., & Protasel, G. (2023). Adopting e-government to monitor public infrastructure projects execution in Nigeria: The public perspective. *Heliyon*.

Al-Besher, A., & Kumar, K. (2022). Use of artificial intelligence to enhance e-government services. *Measurement: Sensors*.

Amatulloh, P. A. & Tuti, R. WD. (2023). Evaluasi Penanganan Pengaduan Masyarakat Melalui Aplikasi Citizen Relation Management di DKI Jakarta.

Amir, S., Hidayana, I., Rahvenia, Z., & Haydar, S. (2023). Dataset on factors associated with social cohesion of urban life in Jakarta. *Data in Brief*.

Andersson, C., Hallin, A., & Ivory, C. (2022). Unpacking the digitalisation of public services: Configuring work during automation in local government. *Government Information Quarterly*.

Axelsson, K., Melin, U., & Granath, M. (2024). Exploring services in a smart city through socio-technical design principles: Revealing five tensions in a smart living context. *Government Information Quarterly*.

Cahyani, A. P., Ode, S., & Herwati, D. M. (2020). Penerapan Kota Cerdas melalui Citizen Relation Management dalam Pelayanan Publik. *Journal of Political Issues*.

Chan, F. K. Y., Thong, J. Y. L., Brown, S. A., & Venkatesh, V. (2021). Design characteristics and service experience with e-government services: A public value perspective. *International Journal of Information Management*.

Chen, Y., & Chen, Z. (2024). Can e-government online services offer enhanced governance support? A national-level analysis based on fsQCA and NCA. *Journal of Innovation and Knowledge*.

Christiani, C., Tedjo, P., & Martono, B. (n.d.). Analisis Dampak Kepadatan Penduduk Terhadap Kualitas Hidup Masyarakat Provinsi Jawa Tengah.

CRM Jakarta. (2021). crm.jakarta.go.id. Selayang Pandang Perjalanan CRM. Accessed April 19, 2024. https://crm.jakarta.go.id/perjalanan-crm

Dita, C. Y. E., & Legowo, M. (2022). Analisis Kepadatan Penduduk Yang Berpengaruh Terhadap Kemiskinan Dan Degradasi Lingkungan.

Danila, R., & Abdullah, A. (2014). User's Satisfaction on E-government Services: An Integrated Model. *Procedia - Social and Behavioral Sciences*.

DPMPT Kabupaten Kulonprogo. (31 Oktober 2019). dpmpt.kulonprogokab.go.id. Pelayanan Publik. Accessed 19 April 2024. https://dpmpt.kulonprogokab.go.id/detil/508/pelayanan-publik

Dwiyanto, A. (2005). Mewujudkan Good Governance Melalui Pelayanan Publik. *Yogyakarta: Gajah Mada University Press*.

Gasova, K., & Stofkova, K. (2017). E-Government as a Quality Improvement Tool for Citizens' Services. *Procedia Engineering*.

Guo, Y. (2024). Investigating the impact of culture dimensions on Chinese citizens' continuous use of e-government websites: A cultural model-based study. *Acta Psychologica*.

Halonen-Akatwijuka, M., & Propper, C. (2024). Competition, equity and quality in public services. *European Economic Review*.

Han, F., & Zhang, D. (2024). Government digitalization and its influence on government functions transformation adopting a Structural Functionalism perspective: Evidence from county-level governments in China. *Heliyon*.

Hanberry, B. B. (2022). Imposing consistent global definitions of urban populations with gridded population density models: Irreconcilable differences at the national scale. *Landscape and Urban Planning*.

Handayani, R. (2021). Evaluasi Kebijaksanaan Aplikasi Citizen Relation Management (CRM) dalam Menyukseskan Jakarta Smart City.

Hardjanti, N. T. (2009). Evaluasi Implementasi Kebijakan: Analisis Mengenai Proses Implementasi dan Dampak Jangka Pendek Peraturan Daerah Nomor 8 tahun 203 tentang Akta Kelahiran di Kota Surakarta.

Hashim, H. (2024). E-government impact on developing smart cities initiative in Saudi Arabia: Opportunities & challenges. *Alexandria Engineering Journal*.

Hernández, A. C. C., Judith, J. J., Pérez Prieto, M. E., Pinto, L. B., & Martínez, E. G. (2024). Analysis of the e-Government development index in the regions. *Procedia Computer Science*.

Indonesian government. 2009. Law Number 25 of 2009 concerning Public Services.

Indonesian Government. 2017. Regulation of the Governor of DKI Jakarta Province Number 128 of 2017 concerning Implementation of Handling Public Complaints Through the Citizen Relation Management Application.

Indonesian Government. 2022. DKI Jakarta Provincial Secretariat Decree Number 99 of 2022 concerning Amendments to Regional Secretary Decree Number 22 of 2020 concerning Follow-up Guidelines for Handling Public Complaints Through the Citizen Relation Management Application.

Iong, K. Y., & Phillips, J. O. L. (2023). The transformation of government employees' behavioural intention towards the adoption of E-government services: An empirical study. *Social Sciences and Humanities Open*.

Jurišić, I., & Bogataj, D. (2024). Enhancing Digital Government Engagement among Older Adults: Literature Review and Research Agenda. *IFAC-PapersOnLine*.

Katharina, R. (2020). Pelayanan Publik & Pemerintahan Digital Indonesia.

Li, Y., & Shang, H. (2020). Service quality, perceived value, and citizens' continuous-use intention regarding e-government: Empirical evidence from China. *Information and Management*.

Listianto, F. D. (2023). Penerapan Aplikasi Citizen Relation Management (crm) dalam Peningkatan Pelayanan Publik di Dinas Komunikasi Informatika dan Statistik Provinsi DKI Jakarta.

Martinez, R., & Masron, I. N. (2020). Jakarta: A city of cities. *Cities*.

Matheus, R., Faber, R., Ismagilova, E., & Janssen, M. (2023). Digital transparency and the usefulness for open government. *International Journal of Information Management*.

Mcloughlin, C. (2024). Public services as carriers of ideas that (de-) legitimise the state: The illustrative case of free education in Sri Lanka. *World Development*.

Mergel, I. (2019). Digital service teams in government. *Government Information Quarterly*.

Muzayanah, I. F. U., Lean, H. H., Hartono, D., Indraswari, K. D., & Partama, R. (2022). Population density and energy consumption: A study in Indonesian provinces. *Heliyon*.

Nzaramyimana, L., & Susanto, T. D. (2019). Analysis of factors affecting behavioural intention to use e-government services in Rwanda. *Procedia Computer Science*.

Osman, I. H., Anouze, A. L., Irani, Z., Lee, H., Medeni, T. D., & Weerakkody, V. (2019). A cognitive analytics management framework for the transformation of electronic government services from users' perspective to create sustainable shared values. *European Journal of Operational Research*.

Rowena, J., Wilujeng, F. R., & Rembulan, G. D. (2020). Pengaruh Kualitas Layanan dalam Menciptakan Kepuasan Publik di Kantor Pelayanan Publik, Jakarta Utara.

Sabiq, R. M., & Nurwati, N. (2021). Pengaruh Kepadatan Penduduk Terhadap Tindakan Kriminal. *Jurnal Kolaborasi Resolusi Konflik*.

Sancoko, B. (2016). Pengaruh Remunerasi terhadap Kualitas Pelayanan Publik. *Bisnis & Birokrasi: Jurnal Ilmu Administrasi dan Organisasi*.

Senadheera, S., Yigitcanlar, T., Desouza, K. C., Li, R. Y. M., Corchado, J., Mehmood, R., Mossberger, K., & Cheong, P. H. (2024). Metaverse as local government communication platform: A systematic review through the lens of publicness theory. *Cities*.

Setyasih, E. T. (2022). Transformasi Digital Pemerintah Daerah Di Era. *Jurnal Papatung*.

Sharma, S. K., Metri, B., Dwivedi, Y. K., & Rana, N. P. (2021). *Challenges common service centers (CSCs) face in delivering e-government services in rural India*.

Sitinjak, E., Meidityawati, B., Ichwan, R., Onggosandojo, N., & Aryani, P. (2018). Enhancing Urban Resilience through Technology and Social Media: Case Study of Urban Jakarta. *Procedia Engineering*.

Susanto, T. D., & Aljoza, M. (2015). Individual Acceptance of e-Government Services in a Developing Country: Dimensions of Perceived Usefulness and Perceived Ease of Use and the Importance of Trust and Social Influence. *Procedia Computer Science*.

Thi Uyen Nguyen, T., Van Nguyen, P., Thi Ngoc Huynh, H., Truong, G. Q., & Do, L. (2024). Unlocking e-government adoption: Exploring the role of perceived usefulness, ease of use, trust, and social media engagement in Vietnam. *Journal of Open Innovation: Technology, Market, and Complexity*.

Turner, M., Kim, J., & Kwon, S. H. (2022). The Political Economy of E-Government Innovation and Success in Korea. *Journal of Open Innovation: Technology, Market, and Complexity*.

Uyen Nguyen, T. T., Van Nguyen, P., Truong, G. Q., Ngoc Huynh, H. T., & Hoang Le, T. P. M. (2024). Investigating the impact of citizen relationship quality and the moderating effects of citizen involvement on E-government adoption. *Journal of Open Innovation: Technology, Market, and Complexity*.

Wasistiono, S. (2019). Aspek Pemerintahan dan Perubahan Komprehensif Era Digital. *Jurnal Ilmu Pemerintahan Widya Praja*.

Weigl, L., Roth, T., Amard, A., & Zavolokina, L. (2024). When public values and user-centricity in e-government collide – A systematic review. *Government Information Quarterly*.

Wibawa, I. G. A. (2020). Sistem Digital Tata Kelola Pemerintahan Daerah (Digital Local Government).

Widjajarto, A., Lubis, M., & Yunan, U. (2019). Architecture model of information technology infrastructure based on service quality at government institution. *Procedia Computer Science*.

Yang, C., Gu, M., & Albitar, K. (2024). Government in the digital age: Exploring the impact of digital transformation on governmental efficiency. *Technological Forecasting and Social Change*.

Yuan, Y. P., Dwivedi, Y. K., Tan, G. W. H., Cham, T. H., Ooi, K. B., Aw, E. C. X., & Currie, W. (2023). Government Digital Transformation: Understanding the Role of Government Social Media. *Government Information Quarterly*.

Zai, A. A. J., Laia, I., & Marpaung, P. (2022). Penerapan Good Governance dalam Pelayanan Publik di Kelurahan Sari Rejo Kecamatan Medan Polonia.

Zou, Q., Mao, Z., Yan, R., Liu, S., & Duan, Z. (2023). Vision and reality of e-government for governance improvement: Evidence from global cross-country panel data. *Technological Forecasting and Social Change*.