

## Digital Transformation: Optimizing Digital Population Identity Activation Services (IKD) in Kuningan Regency

Yuyun Wahyuni<sup>1\*</sup>, Aditya Purnama Alam<sup>2</sup>, Yanto Heryanto<sup>3</sup>  
Administrasi Publik, Fakultas Ilmu Sosial dan Ilmu Politik, Universitas  
Swadaya Gunung Jati

**Corresponding Author:** Yanto Heryanto [yanto.heryanto@ugj.ac.id](mailto:yanto.heryanto@ugj.ac.id)

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### ABSTRACT

The Indonesian government has launched Digital Population Identity (IKD) as a step towards digitalization in the field of population administration. Kuningan Regency in West Java is one of the regions that has optimized IKD activation services. However, further assessment is needed to assess the extent to which the implementation of IKD activation has reached optimal. Based on the findings of the analysis, it shows that the IKD activation service has not reached all levels of society evenly and there are still limitations in existing facilities and infrastructure. Another challenge is the low public awareness of IKD ownership and lack of understanding of technology, especially among the elderly or people who have a low level of digital literacy. This research was conducted at the Population and Civil Registration Office of Kuningan Regency using a qualitative approach. This study uses the theory put forward by Machfud Sidik in (Maulidya & Widiyarta, 2024) which specifically focuses on three key elements: purpose, alternative decisions, and disposition. The data collection technique in this study is through observation, interviews, and documentation at the research site. This research aims to provide deeper insights related to optimizing IKD activation services and overcoming population administration challenges in the digital era.

## INTRODUCTION

The era of digital transformation has brought great changes in all aspects of life, including in the government system. This encourages the government to continue to strive to create excellent public services for the entire community, in order to realize good governance. Realizing that creating a good governance takes time and continuous efforts, it is necessary to build consensus and a high sense of optimism from all components of the nation involving the three pillars of the nation and state, namely the government, the private sector, and the community (Heryanto, 2014).

Digitization of public services is a new challenge for the government to change the traditional service system that is considered slow to be faster, easier, and practical. Through digitalization, it is hoped that the quality of public services can significantly improve, both in terms of effectiveness and efficiency. Public services are defined as a whole series of service activities in general to meet the needs of the community both in the form of goods and services, these public services are carried out by government agencies, legal entities, and independent institutions with applicable procedural guidelines and legal rules (Maryam, 2016). In accordance with the provisions of Law Number 25 of 2009 concerning Public Services, it emphasizes the obligations of the government and the function of the State Civil Apparatus (ASN) in providing public services. The development of the digital transformation era is not only felt by the government in the field of public services, but also by the community as a target. Active public participation in information acquisition and digital service innovation is the key to achieving the optimal goals of innovation created by the government.

Kuningan Regency is ready to become a smart city, with three factors that determine regional readiness. These factors include the quality of human resources and government, which is assessed at 70.47%. Furthermore, infrastructure, which includes physical, digital, and social components, is well developed at 87.28%. Finally, regulatory readiness is 48.44% ([diskominfo.kuningankab.go.id](http://diskominfo.kuningankab.go.id)). One of Kuningan's main capital towards a smart city is smart governance. The Kuningan Regency Government together with the Population and Civil Registration Office of Kuningan Regency innovated to implement a new strategy to increase public awareness of the importance of population administration and take steps to optimize the function of the Population Administration Information System (SIAK) with the Digital Population Identity (IKD) activation service. Along with technological developments, the Digital Population Identity program has been introduced through the Regulation of the Minister of Home Affairs of the Republic of Indonesia Number 72 of 2022. IKD is defined as electronic information that functions as a representation of population documents, as stipulated in article 1 paragraph (18) of the regulation. IKD can be accessed through a digital application on a personal device, which displays the user's identity data. Currently, IKD has been implemented in various regions in Indonesia, including Kuningan Regency.

In 2023, only 8.2% of the population of Kuningan Regency has a Digital Population Identity (IKD). This percentage is much lower than the target set by the Directorate General of Population and Civil Registration, which is 30% of the mandatory ID cards who have smartphones to activate IKD. This target has not been achieved because IKD activation services have not been evenly distributed throughout Kuningan Regency and are faced with the main challenge, namely the lack of public understanding of technology, especially among the elderly or those who have limited digital literacy skills. To achieve the target, it is necessary to optimize the IKD activation service from the Kuningan Regency Disdukcapil.

The Digital Population Identity (IKD) application is designed to simplify the process of managing population documents digitally, such as Identity Cards (KTP) and Family Cards (KK). This is expected to reduce the use of physical blanks issued by the Population and Civil Registration Office of Kuningan Regency, making it easier to implement population administration procedures more flexibly and practically. The IKD application can be downloaded for free on the Google Play Store and App Store for Android and IOS devices with fast downloads and only requires light storage space so it doesn't take up much memory.

Previous research was carried out by Nurani Kinanti on "Optimization of Population Administration Services in the Ownership of Digital Population Identity (IKD) at the Population and Civil Registration Office of Semarang City, Central Java Province" using a qualitative descriptive method with an inductive approach. This research is analyzed using the optimization theory of Hotniar Siringoringo, which consists of three dimensions: goals, alternative decisions, and limited resources. The results of the study show that population administration services in IKD ownership in the Semarang City Disdukcapil are running less than optimally. This can be illustrated through the dimension of goals in the implementation of IKD that have not been fully achieved, where IKD ownership in Semarang City has only reached 3.27%. Meanwhile, the target set by the Directorate General of Civil Registration is 30% of the total population who already have an e-ID card in each district/city. Then in the alternative dimension of decisions, the socialization and pick-up activities carried out have not reached all aspects of society, especially in people who live far from the city center. Meanwhile, in the dimension of limited resources, both in terms of human resources (employees) and supporting resources (facilities and infrastructure) are still inadequate (Kinanti, 2024).

Digital Population Identity (IKD) Activation is a step forward in digitizing public services with a centralized and integrated system that ensures document privacy and security. Only identity owners can access their documents, with a limit of one device per user. The implementation of digitalization in Kuningan Regency through the activation of IKD is expected to be carried out evenly throughout the region so that in the future, IKD can replace physical ID cards and accommodate various administrative needs, such as banking, education, health, immigration, asset buying and selling transactions, and others. This research further explains related to the efforts of the Kuningan Regency government in optimizing Digital Population Identity (IKD) activation services.

## LITERATURE REVIEW

### *Digital Transformation*

In the era of the Industrial Revolution 4.0, the Indonesian government must face a new phase that requires all bureaucratic employees to adapt to technological transformation for the efficiency of public services (Dodi Faedlulloh, Syamsul Maarif, Intan Meutia, 2020). This era is marked by significant changes from people's lives that were previously conventional and manual to more digital (Ramlah Puji Astuti, Siti Khumayah, Agustina, 2020). In general, the concept of digital transformation is the adoption of technology to increase productivity, create value, and improve well-being (Ebert & Duarte, 2018). Digital transformation is a radical process that involves all resources, including the use of the latest digital technology, to produce organizational outputs that provide new experiences, such as ease of transactions, shopping, communication, and so on (Hadiono & Noor Santi, 2020).

### *Optimization*

Optimization is a strategy that is evaluated in terms of effort and results in achieving goals, as said by Winardi (Ali, 2014). Rattu, Pioh, and Sampe (2022) define optimization as the achievement of all needs by maximizing the results of the activities carried out. Optimization is defined by the Oxford Dictionary (2008: 358) as the process of identifying the most optimal solution to a problem, based on predetermined criteria. This includes identifying the optimal action or approach to achieve the desired outcome. Optimization is an effort to improve the performance of a work unit or individual related to the public interest, with the aim of achieving satisfaction and success in the implementation of these activities (N. Bayu, 2017). From this description, it can be seen that optimization is a process that aims to achieve the best results in the most effective and efficient way.

The IKD optimization process in Kuningan Regency pays attention to the theoretical aspect of Machfud Sidik optimization in (Maulidya & Widiyarta, 2024), Based on three indicators, namely:

1. Objectives: Objectives can be in the form of maximization or minimization. Maximization is implemented when the optimization goal is associated with revenue, profit, and other comparable variables. Minimization is chosen when the optimization goal is related to factors such as cost, time, distance, and comparable considerations.
2. Alternative Decision: An activity or action implemented to achieve a goal.
3. Disposition: It is a statement of the attitude of policy makers towards the decision to be taken so that it can determine the sustainability of the commitment of a program that is being implemented.

### *Digital Population Identity*

Digital Population Identity is a form of digitization of e-KTP, or known as Digital KTP. To obtain a Digital Population Identity, residents must first download the Digital Population Identity application via a smartphone (Lestari, Erfina, & Jatmiko, 2023). This IKD is an innovation from the Directorate General of Population and Civil Registration of the Ministry of Home Affairs, which

utilizes digitalization to overcome the problem of reprinting physical electronic ID cards that takes a long time. Thus, people can use IKD as a substitute for electronic ID cards. The IKD service is connected to the centralized Population Administration Information System (SIAK), ensuring security and providing convenience, speed, and security for users in accessing public services (Salsa Bella & Widodo, 2023).

## **METHODOLOGY**

This study uses qualitative research methods, such as those recommended by Denzin, NK, and Lincoln (2009). Qualitative research allows for a thorough assessment of events and their relation to a broader context. Therefore, the focus of the research is directed at building relationships with other contexts and building a consistent narrative. The purpose of this research is to obtain a deep and comprehensive understanding of the optimization of Digital Population Identity (IKD) activation services in order to encourage digitalization in Kuningan Regency. Full support is given by the Population and Civil Registration Office of Kuningan Regency in the implementation of this research.

This research focuses on two main objects, namely the application of Digital Population Identity (IKD) and scientific articles that discuss the optimization of IKD services. Data collection for this study uses observation, interview, and documentation techniques from the research site. Interviews were conducted with 8 informants consisting of the Head of the Population Administration Information Management Division, the Head of the Population Administration Information System Section, the Head of the Population Data Management and Presentation Section, and 5 members of the public. The process of optimizing IKD activation services in Kuningan district pays attention to the theoretical aspect of Machfud Sidik optimization in (Maulidya & Widiyarta, 2024) based on three indicators, namely objectives, alternative decisions, and dispositions. These indicators are used as a framework to analyze the optimization of IKD activation services in Kuningan Regency.

## **RESEARCH RESULT**

The government officially launched Digital Population Identity (IKD) through the stipulation of Minister of Home Affairs Regulation Number 72 of 2022. The Directorate General of Population and Civil Registration (Ditjen Dukcapil) has the task and function to organize IKD. In its implementation, IKD still involves the Population and Civil Registration Office (Disdukcapil) in all districts/cities as the implementing agency.

There are several main requirements that must be met to have a Digital Population Identity (IKD), including the following: (1) recording of an e-ID card; (2) ownership of an active email account and mobile phone number; and (3) using Android and IOS-based smartphones (Sasongko, 2023).

Digital Population Identity (IKD) has been implemented through several stages. In mid-2022, IKD was first introduced to the staff of the district or city Population and Civil Registration Office to find out the advantages and disadvantages of the IKD that is being developed. The next stage is for State Civil

Apparatus (ASN) employees throughout Indonesia. Only at the beginning of 2023, IKD began to be applied to the wider community, including in Kuningan Regency. Due to the limitations of e-ID card blanks, the Kuningan Regency Disdukcapil is encouraged to optimize the implementation of IKD activation for the general public.

The process of activating the Digital Population Identity (IKD) in Kuningan Regency can be done in the applicant's domicile sub-district, without the need to come to the Kuningan Regency Population and Civil Registration Office. However, the implementation of IKD activation in sub-districts and villages is still not optimal because the system is only in sub-districts and there is a lack of SIAK operators that are evenly distributed in each sub-district and village, as a result there are some people who already know IKD but are still confused about where to scan barcodes.

The activation of Digital Population Identity (IKD) at the Population and Civil Registration Office (Disdukcapil) of Kuningan Regency is quite crowded, every day there are around 25-50 residents who come to activate IKD. Residents who are only 17 years old are required to activate the IKD first when taking physical ID card documents. This aims to maximize the use of digital technology in population administration services. In addition, many residents who applied for reprinting their ID cards also took advantage of the opportunity to activate their IKD. This was conveyed by the Head of Population Administration Information Management, Population and Civil Registration Office of Kuningan Regency (Interview, March 22, 2024).

## DISCUSSION

According to Sidik (2001:8), optimization is any form of activity that produces improvement or optimization according to the desired goal, with three indicators used to identify objects in measuring the optimization.

### 1. Purpose

In accordance with the Regulation of the Minister of Home Affairs No. 72 of 2022, Digital Population Identity was launched by the Directorate General of the Ministry of Home Affairs with the aim of following the use of information and communication technology related to digitalization, increasing the use of population digitalization for the public, accelerating the exchange of public or private services in digital form, and providing security of IKD ownership through a verification framework to prevent errors representation and information leakage. With digitalization, the government can optimize the administration of population identities, ease the workload of related agencies, and make it easier for the public to access various services.

The implementation of Digital Population Identity (IKD) aims to open the door to wider accessibility for the community. Through the IKD application, residents can easily access government and private services without the need to come to the office or take care of various physical documents. This is of course very beneficial, especially for those who live in remote areas or have limited mobility. The security and privacy of user data is the main focus in the implementation of IKD, the IKD system is designed with the main goal of protecting users' personal data by implementing high security standards. The

application of encryption technology and advanced security mechanisms is a priority to ensure a sense of security for the public in using IKD. The government, together with the private sector, transparently conveys the governance and privacy protection of IKD data use, the public is equipped with a sufficient understanding of the benefits and protection they obtain.

The Digital Population Identity Application (IKD) is here to make it easier for people to access their population information. This application can be downloaded for free through the Google Play Store and App Store on the user's smartphone. During the activation process, the applicant is required to come to the Disdukcapil office or to the sub-district of domicile to verify identity. This verification is carried out by matching the KTP data with the data on the centralized SIAK server. At the time of verification, the applicant will receive an authentication code via barcode scan and email on a computer device connected to the SIAK server. This authentication code is then used to complete the IKD application activation process on smartphones.



Figure 1. IKD application display (Source: App Store)

The Digital Population Identity (IKD) activation service in Kuningan Regency is now increasingly accessible to the public. In addition to the Population and Civil Registration Office (Disdukcapil) and sub-district offices, the public can also activate IKD at the Kuningan Public Service Mall. More than that, the Kuningan Regency Disdukcapil also often holds IKD activation activities in public places and convenience stores in the Kuningan area, with the aim of increasing public understanding of IKD and making it easier to access for those who want to activate.

Before activating the Digital Population Identity (IKD), SIAK operator officers provide instructions on procedures and procedures for activation to the applicant to facilitate the activation process. After activation, several displays will appear such as electronic signatures, family data, digital ID card documents, services, service monitoring, service documents, activity history, settings, and information. People in the surrounding environment can use a number of features in the IKD application. However, to protect the privacy of user data, this app has a feature that cannot take screenshots when the app or personal documents are viewed. Access to the IKD application can only be done by the smartphone owner himself (Salsa Bella & Widodo, 2023)

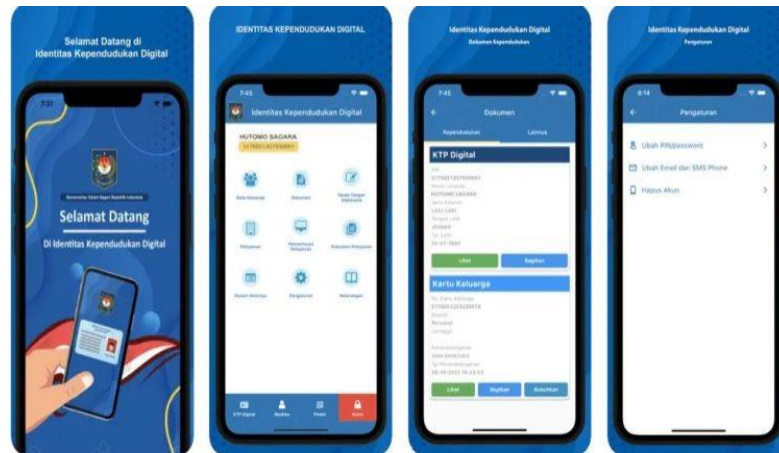


Figure 2. Display of the IKD application after activation (Source: App Store)

## 2. Alternative Results

Alternative decision-making is a key indicator to determine the effectiveness of public services in dealing with population administration problems. Kuningan Regency is certainly faced with various obstacles in the process of applying for population administration, with many of its citizens still not being administrative. Therefore, the Population and Civil Registration Office of Kuningan Regency shows its commitment to supporting the Indonesian Population Administration Awareness Movement (GISA) by creating various service innovations, one of which is the WAKUNCAR program (Time of Visit, Printing, Population Administration and Civil Registration). This program has been launched since 2024 with the aim of optimizing population administration services in Kuningan Regency.

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program has been launched since 2024 with the aim of optimizing population administration services in Kuningan Regency.

The percentage of Digital Population Identity (IKD) ownership in Kuningan Regency has increased from month to month, although it is not significant enough. This can be seen from the recapitulation that activated the IKD in the last four months of 2024. The table below presents more data on IKD ownership in Kuningan Regency:

Table 1. Researchers' observation results until January 2024

Month	Number of Owners IKD
October 2023	1.126
November 2023	1.332
December 2023	1.439
January 2024	3.930

(Source: Disdukcapil Kuningan Regency)

The Kuningan Regency Government through the Population and Civil Registration Office (Disdukcapil) continues to strive to increase the number of IKD ownership. Various activities are intensively carried out, such as Dukcapil On The Street on Sunday during Car Free Day (CFD), socialization to schools for 17-year-old students and exhibition events or bazaars. This effort is driven by the high number of people who do not have IKD compared to the total population of Kuningan Regency which reaches 1,231,772 people, of which 624,827 people are men and 606,945 are women. The lack of public awareness of the urgency of IKD encourages employees of the Kuningan Regency Disdukcapil to continue to carry out routine services and share information on IKD activation services through social media owned by the Kuningan Regency Disdukcapil such as Instagram and websites as well as the installation of pamphlets and standing banners at the Kuningan Regency Disdukcapil office. Through these efforts, the increase in the number of residents who take care of population administration both at the Disdukcapil office, Public Service Mall, District, and the ball pick-up system continues to increase from the beginning to the end of 2024. Of course, this achievement cannot be separated from the hard work and commitment of the employees to the procedures that have been established in the scope of work, both in terms of service, discipline, and other aspects.

### ***3. Disposition***

Disposition is an important indicator of the success of a policy with the direction of the leader to the implementer. In the implementation of Digital Population Identity (IKD) activation, the role of the implementer in helping the success of the policy must be in line with what the community wants. The Kuningan Regency Government has shown an optimal role in this matter. Considering that IKD is a new innovation that is not widely known by the public, a more detailed explanation is needed to ensure that everyone in the community

fully understands IKD. In helping the community to activate IKD, the Kuningan Regency Government has shown good performance, especially in integrating IKD with various public services. This is done by providing clear answers and assistance, not only about the process of activating and using IKD, but also explaining its benefits and advanced features, as well as its ease of use in various public services because some people in the community have tried to use IKD to access public services depending on each agency. Thus, the community understands that IKD can support the process of submitting or applying for their public services.

Based on the description above, it is known that the three indicators needed to optimize IKD have been met. The use of IKD in Kuningan Regency has been going well, although it is not fully optimal. The existing and upcoming efforts by Kuningan Regency in optimizing IKD need to be strengthened again so that the implementation of IKD in the people of Kuningan Regency can support the public service process of the community can be more optimal and this IKD innovation can realize a faster era of digitalization.

## **CONCLUSIONS AND RECOMMENDATIONS**

Optimizing the Digital Population Identity (IKD) activation service is a new innovation, there are many aspects that need to be considered so that its implementation is more optimal. Research using optimization theory shows that efforts to improve IKD activation services in Kuningan Regency have been categorized as quite good, although they have not achieved maximum equity. In the era of digitalization, IKD is present as the most effective approach to overcome the challenges faced in the management of physical population documents, such as loss, damage, and forgery, while IKD provides solutions in the form of applications and electronic documents (e-documents). To optimize the equitable distribution of IKD ownership in Kuningan Regency, extra synergy is needed from various parties, including Disdukcapil employees, community leaders, and other stakeholders. With these efforts, it is hoped that it can encourage the optimization of IKD activation services in Kuningan Regency, so that the IKD program can provide maximum benefits for the community and realize an era of efficient and safe digitalization of public services.

## **ADVANCED RESEARCH**

Every research certainly has limitations. Limitations in the sense of research limitations that influence the researcher's ability to explore the data being studied, limited data available, or external research factors such as limited time and resources. So further research is needed to complete this research.

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