



Challenges In Implementing The Electronic Identity Card Policy: An Analysis Of Service Quality At The Population And Civil Registration Office Of Bandung City

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ABSTRACT

Implementing the Electronic Identity Card (e-KTP) policy has been underway for over a decade since its launch in 2011. However, various challenges persist, especially in urban areas such as Bandung City, which highlight deficiencies in the quality of public services. This study seeks to explore and analyze the dynamics and challenges associated with implementing the e-KTP policy in Bandung City by examining relevant policy dimensions and the quality of public services. Employing a qualitative research methodology, the study utilizes data collection techniques, including in-depth interviews, focus group discussions, observations, and literature reviews. The findings reveal that the Population and Civil Registration Office in Bandung City faces several organizational challenges, such as limited human resources, inadequate infrastructure, and insufficient inter-agency coordination. Moreover, there is a lack of uniformity in interpreting the policy at the implementation level. Community outreach and socialization efforts have been largely ineffective, resulting in low levels of public awareness and participation in the management of e-KTP. Regarding operational challenges, key issues include a limited supply of blank forms, malfunctioning recording devices, and the absence of an integrated population service system. This study recommends that the successful implementation of the e-KTP policy in Bandung City is closely tied to significant improvements in public policy and service delivery. Essential measures include enhancing organizational capacity, optimizing policy interpretation, and refining application systems to ensure effective implementation of the e-KTP. Ultimately, these improvements would increase public satisfaction and trust in population administration services.

Keywords: public policy, population policy, civil registration, policy implementation, service quality

INTRODUCTION

The electronic identity card (KTP-el) is a system of population administration records that adhere to the principles of data security and control, both in terms of organization and technology, based on the collection of population administration data (Solove, 2005). As a resident identity with a unique Population Identification Number (Nomor Induk Kependudukan-NIK), the KTP-el is equipped with an electronic record that includes personal

information such as biodata, photos, fingerprints, irises, and identification marks (Grother et al., 2013). The development of e-KTP is an attempt by the government to implement a one-ID card policy for each individual, using data technology such as biometric security systems, including fingerprint and eye scanners (Dennis, 1989). This process involves devices such as computers, electronic signature pads, cameras, and others. The carefully recorded demographic information is then uploaded to the central government through the organization's web platform and stored in a public database (Grother et al., 2013). The public can then access this data for various purposes, such as settlement of agreements, opening bank accounts, and other public administration (Karpenko, 2018).

The KTP-el service policy in Indonesia has been running for more than a decade (see Figure 1). It aims to update civil registration with various technologies, such as biometric identification, such as iris and fingerprint records, which have been increasingly commonly implemented in various countries (Grother et al., 2013)

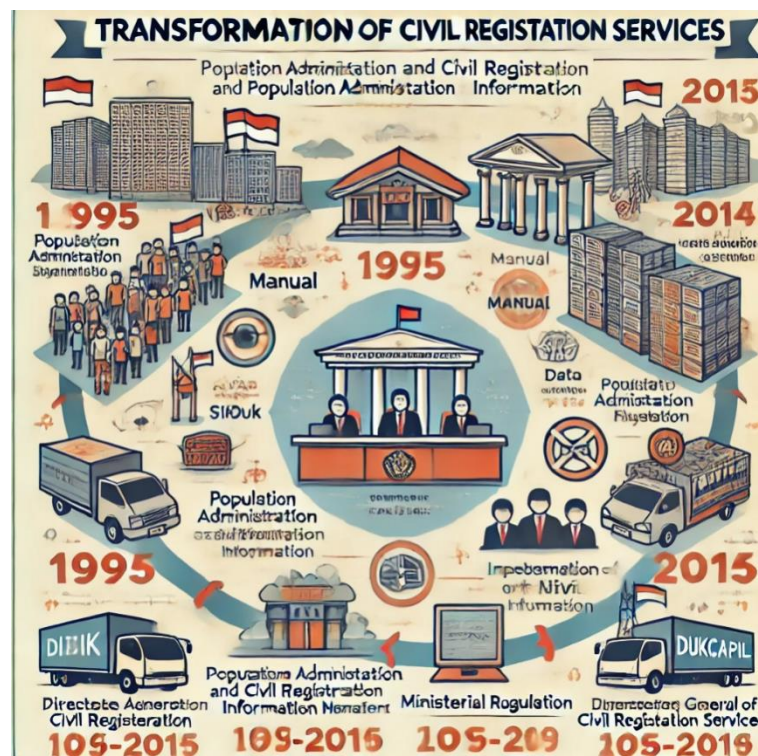


Figure 1. Transformation of the Civil Registration Service journey Republik of Indonesia

Source: Soemartono (2017)

This policy is based on Article 101 of Law Number 23 of 2006 concerning Population Administration, which mandates that the government provide a Population Identification Number to each resident no later than the end of 2011 and that it is included in the Identity Card (Soemartono, 2014). Presidential Regulation (Perpres) Number 26 of 2009 concerning the Implementation of Identity Cards Based on Population Identification Numbers Nationally provides standards for the need for security codes and electronic records of population data based on NIK (Rannenberg et al., 2009). e-KTP as a legally official identity as proof of identity issued by the implementing agency accompanied by a chip and valid for life as long as it is

valid, 2009) Law Number 24 of 2013 concerning Amendments to Law Number 23 of 2006 concerning Population Administration then stipulates that e-KTP as an official identity legally as proof of self-issued by the implementing agency accompanied by a chip and valid for life as long as there is no change in population data (Rannenberget al., 2009).

As a result of the implementation of KTP-el recording until June 2024, the release of the Net Population Data (DKB) Semester I in 2024 noted that of the total mandatory KTP of 207,889,876 people, 202,054,251 people had recorded, or around 97.19% (Appavu, 1997). Although KTP-electronic has been successfully implemented in the field, there are still problems or challenges in its implementation. Problems that commonly occur in implementation in some areas include lack of socialization, communication, and infrastructure constraints (Correa & Pavez, 2016). This problem can be amplified when the context of this problem arises in areas that have a high population density, such as West Java. Data from the West Java Central Bureau of Statistics for 2023 shows that at the beginning of 2021, the population in West Java reached 48,782,400 people. Over the following year, or in 2022, the population of West Java increased by 623,410 people to 49,405,810 people (Culhane et al., 2018). Amplification of these problems can be further found at the level of the city that is the provincial capital, in this case, Bandung City, which has 2.507 million people and is the most populated district/city in West Java. The number of female residents in Bandung City is 1.281.680; the rest are male, totaling 1.287.427. The implementation problems found were mainly two main issues: 1) the length of the process of making electronic ID cards; and 2) the lack of socialization of procedures and requirements for applying for population documents to the community (Soemartono, 2014).

The first problem is the length of the process of making electronic KTPs, which can be seen from the length of the queue due to the number of applicants exceeding the ability of the Population and Civil Registration (Dinas Kependudukan dan Pencatatan Sipil-Disdukcapil), the availability of KTP-el blanks which are often insufficient, technical disturbances in the data recording and KTP-el printing system, the data verification and validation process, mainly data correction and the recording process and the availability of biometric recording devices (Abdianaz et al., 2024).

The various problems often faced by urban areas, especially districts/cities with high populations such as Bandung City, require a more in-depth study of why, even though it has been running for more than a decade and has reached 97% recording at the national level, problems that can be anticipated are still an obstacle to the implementation of policies related to KTP-el and affect KTP-el recording services in Bandung City (Woody, 2007).

This study attempts to answer how the implementation strategy of civil registration policy related to KTP-el in Bandung City is amidst various problems. Based on this, the second part of this article will discuss the need for KTP-el and the two approaches used in this research, namely the policy implementation and public service policy approaches, and the methodology used in this research to use these two approaches to answer the research questions (Woody, 2007).

This study describes the research results and discussion in two sections, corresponding to the two approaches used. In the third section, the research and discussion identify several aspects of the approach and analyze implementation problems. The fourth section explores and describes problems in the KTP-el public service. The fifth section concludes the research, finding that four problems remain: 1) socialization, 2) efficiency, 3) provision of supporting facilities, and 4) integration of applications supporting public services (Moysen et al., 2018).

Every public institution at various levels requires a formal identification system for all citizens and formal identity aims to establish appropriate integrity schemes, prevent data falsification, improve the quality of continuous insurance, and prevent anonymous or anonymous constraints from each citizen (Gelb & Clark, 2013). Indonesia has long embraced using this formal identification system known as the Identity Card (KTP) number. It has now been transformed and integrated through a single and unique identity number through the Population Administration Information System (SIAK). The transformation of the KTP that has been integrated through SIAK is then known as KTP-electronic (KTP-el) (OLANIYI, 2017).

An integrated or centralized record of formal population identity, such as the e-KTP, allows the state to monitor population mobility continuously by linking changes in population size to inflows and outflows (OLANIYI, 2017).

The status of a population and its socio-demographic structure can be determined at any time without the need to wait for a census (Ukoji et al., 2019). With the integrated formal population records, the condition of population changes can be estimated at any time and not only annually, as before the computerization era, when population records were only done locally (Faaborq et al., 2010). Centralized data can be used to provide a standardized and consistent picture of population status and changes occurring in each region at the same time (Ferlay et al., 2010). Integrated identity data is also needed to overcome public service problems (Culhane et al., 2018). Dass and Bajaj outline that an integrated national identity system will help facilitate heavy and diverse public services such as education, health, and social security (Bajaj & No, 2008). With this convenience, public services will be more trusted and create a sense of security for citizens.

In the first approach related to the need for KTP-el, policy implementation is an important stage in the public strategy process because it is the execution stage after the regulation is stipulated so that it impacts the objectives of organizing governance. (Bajaj & No, 2008) Charles O. Jones also highlights three important stages in public policy implementation: policy organization, interpretation, and application. (Bajaj & No, 2008). The first stage, namely organization, includes the rearrangement of resources, units, and methods to implement a policy, which involves the establishment of an appropriate organizational structure, allocation of necessary resources, and arrangement of work methods needed to implement the policy, (2022) The first stage, namely organization, includes the arrangement or rearrangement of resources, units, and methods to implement a policy which involves establishing an appropriate organizational structure, allocating the necessary resources, and arranging the work methods needed to implement the policy (McCubbins et al., 1989).

The second approach is related to e-KTP public services (Wilson, 2009). Public services carried out by the government assist the community without discrimination and at an affordable cost so that it can be accessed by the group that needs it most (Jilke et al., 2018).

This task is part of the state's responsibility carried out through public institutions and their administrative tools, which confirms that public service is the primary function of government (Tsakalakisz et al., 2017). According to Parasuraman, Zeithaml, and Berry, public service can be defined as a process or series of actions carried out by service providers, both government and private sector, to meet the needs and desires of the community in an effective, efficient, and responsive manner (Hirmukhe, 2012). Services to the public must also be assessed from the quality of service, which can be assessed based on five aspects which include:

- 1) physical evidence (tangibles), which is described by the adequate arrangement of human resources and other assets;
- 2) reliability, which is denoted by offering appropriate and correct services;
- 3) responsiveness, which is described by the desire to serve customers responsively;

4) assurance, which is recognized by the level of attention to ethics and morals in providing services; and 5) empathy, which is symbolized by the level of willingness to know the wants and needs of consumers (Pena et al., 2013).

METHODOLOGY.

This research uses a qualitative approach method with the locus of the Bandung City Population and Civil Registration Office and employees involved in the process of implementing KTP-electronic services (Ramseook-munhurrun et al., 2010). The city of Bandung was chosen as the object of research to represent an urban area in Indonesia with a population of up to 3.81 million people (2020), especially as the capital of West Java Province and with a very close distance to the capital city of Jakarta (Ramseook-munhurrun et al., 2010). The success of Bandung City in overcoming the challenges in implementing the e-KTP policy should be a very good illustration of the success or failure of a national government population policy (Ramseook-underrun et al., 2010). Therefore, the ability of Bandung City to implement KTP-electronic will be an important illustration of the region's ability to implement future population administration policies, including Digital KTP (Teshome et al., 2020). The research took place during the last quarter of 2023 to the first quarter of 2024. Data collection was conducted through primary and secondary data collection. Primary data collection was conducted through observation, in-depth interviews, and focus group discussions involving various key informants, such as Officials and Implementers at the Bandung City Population and Civil Registry Office (the Population and Civil Registration Republik of Indonesia, Bandung City West Jawa 2024) as the implementer of the E-KTP policy and Field Implementers at the Sub-district Office. Secondary data was collected by studying literature sources, articles, reports, and related statistical data (Manji et al., 2021).

RESULTS

Dimensions of Policy Organization

A public entity can improve policy implementation strategies, increase operational efficiency, and achieve policy objectives more effectively following its context if an organization has a clear vision and derivative policies that provide more detailed and structured directions (Chenhall, 2003). Regarding policy organization, the organizational structure in the Bandung City the Population and Civil Registration Republik of Indonesia, Bandung City West Jawa 2024 has been adjusted to the guidelines set by the central government, which includes the assignment and grouping of various functions to ensure efficient and standardized operation of KTP-el services (Chenhall, 2003). However, several challenges remain in achieving orderly population administration in Bandung City. First, in the context of KTP-el request services, there are still irregularities in the use of the Population Identification Number (NIK), which has an impact on the service process (Chenhall, 2003). This usually happens to residents with double data or individuals with more than one NIK (Galbraith, 2014). Second, administrative documents are not in order, such as discrepancies between NIK data recorded in e-KTPs at district and city service offices and NIK data at the Ministry (Galbraith, 2014).

These discrepancies are often caused by data loss during the KTP-el processing process (Galbraith, 2014). Third, coordination is still needed in the implementation of KTP-el program services (Galbraith, 2014). This is very important to ensure that business processes are not only under KTP-el service procedures but also run smoothly and do not take time. (Galbraith, 2014). These issues highlight the need for further efforts to improve coordination and better

management of KTP-el services and improve operational structures and processes at the local level to achieve more orderly and effective administration of KTP-el services (Galbraith, 2014). In addition, the similarities between the problems faced by the Bandung City the Population and Civil Registration Republik of Indonesia in terms of organizational dimensions and some urban/city areas with similar characteristics, such as Semarang and Surakarta, warrant a more critical review of the standards set by the central government (Teshome et al., 2020). This research encourages such studies to look at aspects of the representation of regional voices in forming standards at the national level to encourage increased synchronization between organizing at the central level and the local context (Termeer et al., 2011).

Dimensions of Policy Interpretation

The interpretation dimension refers to how people's interpretations of government policies or actions can influence responses and perceptions of government (Rothstein & Teorell, 2008). This also includes how various parties interpret government policies or actions, including the media, interest groups, and the public (Carney et al., 1987). This approach is explored by researchers to reveal how public perceptions, experiences, and responses to the implementation of this policy have the potential to affect the effectiveness and public acceptance of the population administration services provided (Beirão & Sarsfield Cabral, 2007).

Based on the policy interpretation side, several notes related to implementing KTP-el in Bandung City were found (Carney et al., 1987). First, data analysis is carried out by comparing, verifying, and validating population data in Bandung City using the Centralized Population Administration Information System (SIAK) application provided by the Ministry of Home Affairs (Carney et al., 1987). This approach aims to ensure the accuracy and reliability of managed population data. However, if there are obstacles in the field, the regions must wait for improvements from the central government. This results in disruptive service delays in the field (Mack et al., 2005). Second, although KTP-el has been implemented in Bandung City, the target achievement has not reached 100% (Woodford, 2001). This is due to policy changes that occur periodically, so the policy interpretation must be adjusted and equalized again. This has caused the socialization process in the community to be unoptimum (Woodford, 2001).

Further efforts need to be made to increase public understanding and participation in implementing KTP-el to achieve the desired target. Third, the uneven knowledge of the community regarding the procedure for making KTP-el is due to the fact that the socialization about the procedure for applying for KTP-el is obtained when the community comes to the sub-district instead of using the already available application (Ducheneaut, 2005). The findings above show that the socialization process in the community is less than optimal due to the dynamics of policy changes or adjustments that occur periodically (Gilardi, 2013). This has an impact on the socialization process that must be redone to the community (Gilardi, 2013).

Dimensions of Policy Application

The policy application dimension is interpreted as the stage of policy implementation in accordance with established guidelines and rules (Persson, 2004). In the context of the research locus, the Disdukcapil of Bandung City no longer manages the population data of electronic ID cards independently or manually and does not have direct access to the national database. They analyze the population data provided by the central government by downloading the processed data through the Ministry of Home Affairs' PDAK File Transfer Protocol (FTP) server (Herrett et al., 2010). This data is then processed using the Microsoft Excel application to be compiled into relevant reports. To facilitate population services such as KTP-el, Disdukcapil prepared several supporting service programs, including the SiPaku application, which monitors and interprets population data at the sub-district level (Herrett et al., 2010).

Then, there is the nan service via WhatsApp through the admin, which is an informative service to the community, facilitating interaction and questions about population administration.

The Population and Civil Registration Republik of Indonesia also provides Ceu Imas (Hotline Service) as an emergency communication channel if the WhatsApp service is experiencing problems or cannot be accessed (Susilo, 2014). When a disruption or error occurs, the sub-district informs the community via WhatsApp and sends documents online to fix the problem (Manji et al., 2021).

However, there are still some findings related to the implementation of KTP-el in Bandung City. First, the application of socialization of the convenience of KTP-el services by the Bandung City Disdukcapil has not optimally functioned due to the lack of integrated communication channels between the Bandung City the Population and Civil Registration Republik of Indonesia, Bandung City West Jawa 2024 and the community (Manji et al., 2021). The application of socialization is carried out through many lack of comprehensive service platforms (García-Valls et al., 2018). This causes the community to face difficulties in accessing services efficiently and effectively (Wang & Zhang, 2012). Second, the presence of applications as an online integrated service platform has not been able to meet the community's needs (Wang & Zhang, 2012).

This is indicated when the community processes applications and services that still require direct or manual interaction, which can slow down the efficiency of services to the community, so the presence of applications as a platform that should provide convenience is still not applicable to solving the problems that occur (Ni et al., 2018). Third, in addition to socializing through applications, Disdukcapil Bandung City also socializes KTP-el services through social media such as email, Instagram, YouTube, Facebook, and Twitter (Profile et al., 2016).

The application of socialization through social media has not been optimal (Profile et al., 2016). Limited resources, especially in terms of personnel who can manage and monitor social media, significantly affect the performance and effectiveness of using these platforms in providing information and receiving feedback from the community (Iamergel, 2013). Overall, application integration challenges and suboptimal social media management indicate further efforts to improve the technological infrastructure and human resources at the Bandung City Disdukcapil to increase efficiency, accessibility, and responsiveness in administrative services to the community (Bau et al., 2024).

DISCUSSION

According to Zeithaml, Parasuraman, and Berry, public service can be defined as a process or series of actions carried out by service providers, be it the government or the private sector, to meet the needs and desires of the community in an effective, efficient, and responsive manner (Berry et al., 1988; Hirmukhe, 2012; Parasuraman et al., 2005; Pena et al., 2013; Zeithaml et al., 1996). Services to the public must also be assessed from the quality of service, which can be assessed based on five aspects which include: (1) physical evidence (tangibles), which is described by adequate arrangement of human resources and other assets; (2) reliability, responsiveness which is denoted by offering appropriate and correct services; (3) responsiveness, which is described by the desire to serve customers responsively; (4) assurance, which is recognized by the level of attention to ethics and morals in providing services; (5) and empathy, which is symbolized by the level of willingness to know the wants and needs of consumers.(Profile et al., 2016) Based on the approach to the aspects of public

services above, the findings and discussion of the e-KTP public service in Bandung City are as follows:

Physical Evidence

Based on the dimension of providing physical evidence, e-KTPs depend on the existence of a physical identity card. The central government provides these identity cards by procuring KTP-el blanks, which are distributed to each region (Gelb & Clark, 2013). Limitations in providing physical blanks are often an obstacle to ensuring fast and efficient services (Gelb & Clark, 2013). One of the causes of the limited blanks is that the procurement of KTP-el blanks still has to adjust to the number of requests or community needs, which can cause service delays (Gelb & Clark, 2013). In addition, the problem of procurement of KTP-el blanks is limited and only available from the central government, thus delaying services (Pangestu, 2022). Overcoming the limitations and delays in the arrival of the blanks, Disdukcapil anticipates diverting them to Digital Population Identity (IKD) so that population administration services can continue. In addition to delays in the provision of blank forms, other infrastructure support problems hamper services, such as damage to data recording equipment, printer ink that runs out, slow internet networks, and servers that sometimes experience downtime. Based on the description above, it is illustrated that matters of physical support, such as blanks and infrastructure, still contribute to disrupting the provision of KTP-el services for the community (Zeithaml et al., 1996).

Reliability

Based on the reliability dimension, the Bandung City Disdukcapil has routinely coordinated with the central government to minimize obstacles that often occur, such as printing failures, limited blanks, and network connection problems. The Population and Civil Registration Republik of Indonesia, has also implemented the SOPs set by the central government well. For example, the SOPs for making KTP-el in the Coblong sub-district and other service outlets have also followed the general guidelines from the Ministry of Home Affairs (Hirmukhe, 2012). However, some issues still affect the quality of KTP-el services in Bandung City, including the lack of socialization. Although the SOP has been implemented well, the procedures are still often changed, and the community is still not fully aware of the SOP (Hirmukhe, 2012). This is caused by insufficient socialization conducted in the community, so achieving the KTP-el-making target has not been maximized. In addition, some obstacles to implementing KTP-el making in Bandung include the time needed to overcome the problems (Hirmukhe, 2012). The length of time needed to overcome various problems has an impact on the incomplete resolution of various problems, such as late delivery of blanks from the central government, equipment damage such as recording cameras, running out of printer ink, and server disruptions. The obstacles in the decision-making process to resolve the problem caused the process of making KTP-el, which should have been completed within 8 days, to be longer, so the community had to wait longer than expected (Zeithaml et al., 1996). Based on the description above, it is illustrated that in terms of reliability, weak socialization and the length of time needed for the problem-solving process contribute to the disruption of KTP-el provision services for the community (Zeithaml et al., 1996).

Responsiveness

Based on the responsiveness dimension, the Bandung City Disdukcapil has prepared various forms of good response, such as distributing services to 30 sub-district offices, six service outlets, mobile service cars (Mapelling), and ball pickup services known as Bi Eha and Mang

Udin (Pena et al., 2013). This service distribution aims to anticipate the accumulation of mass in one particular service office so that services can be more evenly distributed and there is no excessive crowd (Berry et al., 1994). Community responses to the implementation of the e-KTP policy in Bandung City are positive. The community considers that the services provided are pretty good, with the quality of HR (Human Resources) who are friendly and helpful. The community is very enthusiastic about the service policy through outlets (Berry et al., 1994). Service outlets are considered more efficient because they can help reduce the accumulation of people coming to the sub-district office to care for their KTP-El needs. However, in terms of responsiveness, there are still several things to note (Berry et al., 1994). Second, the community's positive response to implementing KTP-El in one sub-district only reached 50%. This figure is influenced by the community's habit and lack of awareness of making KTP-El and digital IKD (a temporary replacement when the blank is experiencing obstacles). (Berry et al., 1994) This figure shows that there is still room for improvement, especially in raising public awareness of the importance of making KTP-El and digital IKD, which is a temporary replacement when the blank is experiencing obstacles (Berry et al., 1994). More intensive education and socialization are needed so the entire community can understand and take full advantage of this service. Based on the description above, it is illustrated that in terms of responsiveness, although the city government has been very responsive by spreading services to all sub-districts with various facilities, the opposite response from the community has not increased. In this case, public awareness of making KTP-el or digital identity cards still needs to be improved (Berry et al., 1994).

Assurance

Assurance needs to be provided to the public to address public concerns about their data security when implementing electronic ID cards (Tsakalakis et al., 2017). With the implementation of the centralized Population Administration Information System (SIAM) policy, the Bandung City Disdukcapil no longer has direct access to the population database, which is now national (Landsbergen & Wolken, 2001). This policy aims to ensure the privacy of people's data and prevent data falsification, as population data is now managed centrally and is more controlled (Banisar & Davies, 1999). On the other hand, the security of people's databases is guaranteed in accordance with the Minister of Home Affairs Regulation No. 57 of 2021 concerning the Population Administration Information Security Management System (SMKI). This regulation ensures that people's data is protected with high-security standards to minimize the risk of data misuse and leakage (Eechoud et al., 2015). Also, from the bureaucratic side, there is a guarantee that service ethics and morals are regulated in Law Number 25 of 2009 concerning Public Services. This law is supported by Bandung Mayor Regulation Number 90 of 2022 concerning Requirements and Procedures for Organizing Population Administration. This regulation prepares the SOP for KTP-El Services in Bandung City, ensuring that public services are carried out with high ethical and moral standards (Gilman, 2005). However, based on the dimension of assurance, the results of the interviews conducted in this study found that in terms of public services for making electronic ID cards, people still feel worried about the security of their data, especially those concerning financial data (Gilman, 2005).

Empathy

In terms of empathy, in providing KTP-el services for all residents of Bandung City, the Population and Civil Registration Republik of Indonesia, pays attention to elements of empathy, including ensuring services are provided to vulnerable populations to accelerate achieving maximum results (Gilman, 2005). the Population and Civil Registration Republik of

Indonesia also conducts mobile services or ball pickup efforts for residents who cannot come to the sub-district for KTP-el recording due to serious illness, ODCJ residents, and residents with disabilities. Although the plans and concepts for implementing KTP-el services are well designed, the reality is that not all of these programs can be implemented optimally in the community (Gilman, 2005). Some issues include the ball pickup effort, which aims to serve people who cannot come to the sub-district for KTP-el recording but are not implemented optimally (Basu, 2004). This is due to limited human resources, which are mainly deployed to serve people who come directly to the registration counter at the sub-district (Basu, 2004). In addition, there is only one data recorder unit. This shortage hampers the efficiency and effectiveness of KTP-el recording services (Basu, 2004). Problems with human resource support and limited infrastructure have an impact on reducing the empathy side of the KTP-electronic program service (Anderfuhren-Biget et al., 2014). This needs special attention from the central government and city governments. With more support and attention, the planned programs can be more targeted and achieve the desired targets (Salabay et al., 2013) .

CONCLUSION

The KTP-el program implemented by the Bandung City Disdukcapil still faces several significant challenges that hinder the achievement of orderly population administration. Some important issues that are the main challenges include: 1) socializing with the community about the importance of this program. As a result, community participation in the KTP-el program has not been optimal. 2.) Constraints in Program Efficiency: Program efficiency is also a significant concern. The KTP-el recording process takes quite a long time, significantly when the number of applications increases 3.) Challenges in providing supporting facilities, including Blangko and supporting printing equipment, have become a classic issue, namely the frequent running out of KTP-el blanks and damage to supporting equipment (Basu, 2004). The procurement and distribution of blanks must be well planned, adjusted to projections based on incoming recording data, and considering data changes such as births or deaths (Basu, 2004). This causes inequality in meeting the community's need for KTP-el. 4.) Problems of Application Integration Supporting population services in the regions, the availability of many separate regionally-owned applications without integration in one platform is another obstacle that often confuses the public in its use and can hamper effective coordination in population data management, for example for queue numbers and scouting using different numbers instead of using the available applications (Berry et al., 1994) .

RECOMMENDATION

Based on the research findings, practical recommendations can be proposed to overcome challenges in implementing the Electronic Identity Card (e-KTP) policy, mainly focusing on the quality of services at the Population and Civil Registration Office of Bandung City.

1. Improvement of Tangibles (Physical Evidence)

Physical facilities and infrastructure must be improved to improve the overall service environment. This includes improving the waiting room to ensure comfort, increasing the number of service counters to handle residents efficiently, and implementing a digital queue system to reduce congestion. In addition, technological modernization is also significant; ensuring that electronic ID card printing devices are consistently maintained and available in sufficient quantities is essential to avoid delays in service delivery. In addition, adopting a strong digitization strategy and optimizing digital-based services to manage electronic ID cards

should also be prioritized. This can simplify processes, including online queuing systems, self-service applications, and information chatbots.

2. Strengthening Reliability

Reliability can be significantly improved through comprehensive training and human resource development. Improving employee competence in managing population services through regular training programs that include updates on the latest regulations and technical skills improvement is very important. Periodic monitoring and evaluation of the electronic ID card service process must be carried out to identify obstacles and find practical solutions. In addition, ensuring the availability of electronic ID card blanks is also very important; effective procurement planning and collaboration with central agencies will help prevent shortages of blanks.

3. Improve Responsiveness

To improve responsiveness and optimize online services, the Bandung City Government needs to set up a call center that effectively handles citizen complaints. Improving the online complaint and consultation system is necessary to facilitate user engagement. Setting clear service turnaround time standards will enable employees to respond quickly to citizen requests while providing prioritized services for vulnerable groups—such as the elderly, people with disabilities, and those with special needs—will ensure equitable access to services.

4. Strengthening the Assurance Aspect

More intensive dissemination of information regarding e-ID card procedures, requirements, and service times is essential. These efforts must utilize social media, official websites, and print media to increase public understanding of the existing processes. Regarding data security, implementing a strong system to protect citizens' data from potential leaks or misuse is paramount. Increasing service transparency by displaying clear information regarding service flows, associated costs, and expected completion times—both in service offices and through digital platforms—will increase public trust.

5. Cultivating Empathy

Adopting a more humanistic approach is fundamental to fostering empathy in service interactions. Training employees to improve their communication skills and provide more friendly services can improve the citizen experience. Regular community satisfaction surveys will provide valuable insights into service quality and inform future improvements. In addition, implementing flexible service hours, such as weekend or mobile services, can help people who have difficulty accessing the Civil Registry Office during working hours. These recommendations aim to encourage a more effective, efficient, and citizen-centered approach to implementing the electronic ID card policy, thereby improving the quality of services at the Bandung City Population and Civil Registry Office.

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