



ARTICLE

Balanced e-Government Scorecard of Online Public Services in the Pekanbaru City Population and Civil Registration Office

Muhamad Nelwan Wahyuda Subekti , Baskoro Wicaksono 

Riau University, Pekanbaru, Indonesia

 muhammadnelwan2707@gmail.com

 OPEN ACCESS

Citation: Subekti, M. N. W., & Wicaksono, B. (2025). Balanced e-Government Scorecard of Online Public Services in the Pekanbaru City Population and Civil Registration Office. *Jurnal Bina Praja*, 17(2). <https://doi.org/10.21787/jbp.17.2025-2921>

Submitted: 15 May 2025

Accepted: 20 July 2025

Published: 31 August 2025

© The Author(s)



This work is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-nc-sa/4.0/).

Abstract: The Population and Civil Registration Office of Pekanbaru City utilize e-government through the Layanan Tunggu (Lagu) application to process lost, damaged, and urgent electronic identity cards (e-ID). In practice, however, the application's public satisfaction index consistently declined from 2021 to 2024, alongside poor ratings on the Google Play Store. This study aims to analyze the performance and maturity of the Lagu application using the five dimensions of the balanced e-government scorecard (benefits, efficiency, participation, transparency, and change management) and Darrell M. West's e-government maturity model. A descriptive qualitative approach was employed, utilizing primary and secondary data validated through methodological triangulation. Data analysis followed the interactive model by Miles, Huberman, and Saldaña. The results reveal that three of the five dimensions operate sub optimally. In the benefits dimension, iOS users lack access, the urgent e-ID printing feature was removed, and counter staff provide less friendly service. Regarding participation, the termination of a partnership with Grab forces applicants to collect their e-IDs in person. In terms of change management, application maintenance and development are handled passively. Furthermore, the Lagu application exhibits pseudo-maturity at the second stage, further explaining the declining public satisfaction and poor app ratings. This study is limited to evaluating the Lagu application and does not provide program recommendations. Therefore, future research should explore collaborative governance and propose evidence-based program recommendations.

Keywords: e-Government; e-ID; Maturity.

1. Introduction

Governments that implement e-government must properly monitor the performance of the service system they offer. The effective and efficient use of e-government will result in better public services. One method for measuring the performance of e-government utilization is a balanced e-government scorecard (Bertelsmann Foundation, 2002). This concept aligns with the views of Indrajit et al. (2007) in his paper titled "Electronic Government in Action," where he notes that a balanced e-government scorecard can evaluate the performance of governments implementing e-government. This approach has been used in over 12 countries, including Canada, the UK, Sweden, and several states in the United States. However, this concept has not been widely adopted by researchers in Indonesia.

To date, research and literature in Indonesia have been very limited in examining the e-government performance of Regional Government Organizations (RGOs), such as the Layanan Tunggu (Lagu) application, using the balanced e-government scorecard conceptual framework, elaborated in conjunction with the e-government maturity model. The use of this concept is urgent in research to fill the gap in literature, not only from the perspective of online services but also online participation.

The development of Information and Communication Technology (ICT) greatly affects various aspects of life, including government. This era requires the public and private sectors to integrate technology into their existence (Rahmadany, 2021). Government institutions, especially in Indonesia, must adapt to the times in every government activity (Wicaksono et al., 2021). Through e-government, the government can deliver public services more closely to the community without meeting face-to-face. In general, e-government is defined as the use of information and communication technology by governments to increase governance efficiency (Zubaidah et al., 2024).

Presidential Instruction No. 3 of 2003 concerning National Policies and Strategies for E-Government Development is the forerunner of the implementation of the e-government concept in Indonesia (Kurnia et al., 2018). This condition has led to the massive use and development of e-government in Indonesia to date. Ochoa-Urrego and Peña-Reyes (2021) said that the development of ICT makes digitalization an important element in the government sector. Because ICT continues to develop and encourages faster government digitalization (Firdaus et al., 2021). This must be done as part of efforts to modernize public services, which tend to be bureaucratic and slow to adopt digital government (Prakoso, 2020).

The government is currently under pressure to develop a broad understanding of ICT and proficiency in using it to improve the quality and capabilities of its public service delivery (Muliawan & Harirah, 2024). Public services are the main function of the government to its citizens, as stated in Law Number 25 of 2009 concerning Public Services (Karya et al., 2024). It should also be remembered that public services delivered through e-government must be carried out evenly, from the central government to the local government (E. Wargadinata et al., 2022).

Technological developments can also provide new dynamics in governance (Manoby et al., 2021). As the government transitions from traditional services to digital services, it also brings new problems and challenges (The United Nations E-Government Survey, 2022). As the world's largest archipelagic country, Indonesia faces a digital infrastructure gap across its regions (Saksono, 2024). Riau Province, through the Regulation of the Governor of Riau Province Number 11 of 2018 concerning the Implementation of Electronic Government (E-Government) in the

Riau Provincial Government, implements e-government as a goal to improve the quality of information services and public services.

Pekanbaru, the capital city of Riau Province, also implements e-government to support the delivery of high-quality public services, as outlined in Pekanbaru Mayor Regulation Number 13 of 2023 concerning the Implementation of Electronic-Based Government Systems in the Pekanbaru City Government. The Pekanbaru City Population and Civil Registration Office have innovated through the implementation of e-government with a government-to-citizen (G2C) model. The Pekanbaru City Population and Civil Registration Office are a Regional Apparatus Organization that carries out compulsory concurrent government affairs that are not related to basic services, as contained in Article 12 of Law Number 23 of 2014 concerning Regional Government.

The Pekanbaru City Population and Civil Registration Office's online services initially consisted of only five types of services, namely Sipenduduk, Layanan Tunggu, Pindah dan Datang Service, Sipintar, and Sinopsis, contained in Pekanbaru Mayor Regulation Number 107 of 2021 concerning Electronic-Based Service Systems at the Population and Civil Registration Office, while other online services are still based on the Decree of the Head of the City Population and Civil Registration Office Pekanbaru. On June 12, 2024, Pekanbaru Mayor Regulation Number 107 of 2021 was replaced by Pekanbaru Mayor Regulation Number 20 of 2024 concerning the Online Population Service System at the Population and Civil Registration Office. Online services have also increased to 13 types, as seen in [Table 1](#).

Table 1. Online Services at the Pekanbaru City Population and Civil Registration Office

No.	Administrative Services	Function	Type
1	SIPENDUDUK (Sistem Informasi Pelayanan Terpadu Kependudukan)	For the submission of applications for integrated population document services	Website
2	LAGU (Layanan Tunggu)	To print e-ID cards that are lost, damaged, and in urgent need	Mobile
3	SIPINTAR (Sistem Pelayanan Melengkapi Identitas Orang Terlantar)	For the issuance of Indonesian biodata	Website
4	SIPEDAS (Sistem Informasi Penunggakan Data Siswa)	For recording registration services for beginner students for e-ID cards and data element change services on birth certificates and family cards	Mobile
5	CENDEKIA (Percepatan Penerbitan Dokumen Kartu Identitas Anak)	For child identity card issuance services	Website
6	SIMANJA (Sistem Informasi Manajemen Penilaian Kinerja)	To measure the performance of service officers	Website
7	KADO CAMER (Sistem Kerjasama Penerbitan Dokumen Akta Kelahiran Pasca Melahirkan)	For the service of issuing postpartum birth certificate documents	Website
8	PENTAS KITA (Sistem Pelayanan Pencatatan Akta Perkawinan Berbasis Kemitraan)	For the registration of marriage certificates in partnership with religious institutions or organizations for non-Muslims	Website
9	ANDONG (Sistem Anterin Dong)	For the service of requesting the delivery of e-ID cards and Child Identity Cards	Website
10	PLAKAT KECIL (Sistem Perubahan Status Langsung Kawin Tercatat Kerjasama Kementerian Agama dan Dinas Kependudukan dan Pencatatan Sipil)	For integrated services, population registration and civil registration in the issuance of KK documents and e-ID cards for newly married couples for residents of Pekanbaru City are carried out in collaboration with the Ministry of Religion of Pekanbaru City	Website
11	PEDANG BIRU (Sistem Pelayanan Pendetang Terbitkan Kartu Keluarga Baru)	For the issuance of Family Card and e-ID card documents for immigrants	Website
12	LADO PKU (Sistem Layanan Pindah Online Pekanbaru)	For services moving out of Pekanbaru City	Website
13	LOKDON (Sistem Loker Layanan Pengaduan Online)	For the service of handling complaints of population documents and civil registration	Website

Source: Pekanbaru Mayor Regulation Number 20 of 2024.

Table 2. Most Frequently Used Service Reports in 2021–2024

Service Name	Number of Services Performed
Pedang Biru	39,772
Lagu	26,819
Kado Camer	14,723
Cendekia	11,371
Sipenduduk	6,744

Source: Pekanbaru City Population and Civil Registration Office, 2025.

Based on existing data, the 13 types of online services were used most often by the people of Pekanbaru City from 2021 to 2024, with five of them being the most used. These online services have been accessed thousands, or even tens of thousands, of times; in contrast, other services, especially those that have emerged since 2024, have not been accessed much and tend to require manual management. As seen in Table 2.

Table 2 shows that the Pedang Biru website is the most accessed service in Pekanbaru City, followed by the Lagu application, the Kado Camer website, the Cendekia website, and the Sipenduduk website. Apart from that, what is of particular concern here is public satisfaction with online services by the Pekanbaru City Population and Civil Registration Office. The Lagu application still does not provide satisfaction to the community, as shown in Figure 1.

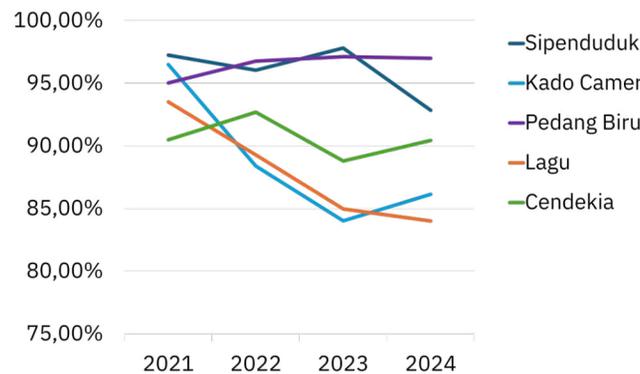


Figure 1. Public Satisfaction Index for the Five Most Frequently Used Types of Services in 2021–2024

Source: Pekanbaru City Population and Civil Registration Office, 2025.

Figure 1 visualizes the dynamics of public satisfaction with the five most frequently used online services. The data shows that the Lagu application is underperforming in sustainability trends. Unlike Pedang Biru, which showed service resilience with a positive trend, Cendekia and Kado Camer experienced declines but reversed direction. Sipenduduk still shows a level of community satisfaction above 92.85%. At the same time, the Lagu application actually experienced a linear negative trend, with a total decrease of 9.5 percentage points from 2021 to 2024, a decrease of 93.52%, 89.29%, 84.98%, and 84.01%.

Article 2, paragraph (2) of Mayor Regulation Number 20 of 2024 contains the purpose of online services, namely, to realize the effectiveness and efficiency of the implementation and development of population administration service system applications and to encourage the realization of good governance by utilizing technology to produce fast, precise, and quality services. The Lagu application, released in April 2020, has not fully achieved the set goals and is still not optimal in

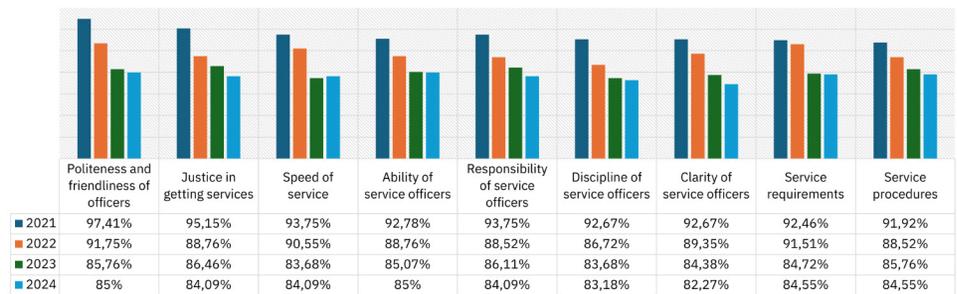


Figure 2. Public Satisfaction Index for Layanan Tunggu Applications in 2021–2024

Source: Pekanbaru City Population and Civil Registration Office, 2025.

carrying out its functions, so it appears underperforming until 2024. Because in its implementation, there are still often inconsistencies between practice and normative. This is evidenced by the downward trend in the community satisfaction index, which consists of nine assessment indicators, namely the politeness and friendliness of officers, justice in getting services, speed of service, ability of service officers, responsibility of service officers, discipline of service officers, clarity of service officers, service requirements, and service procedures.

Figure 2 shows that nine assessment indicators declined consistently from 2021 to 2024. All assessment indicators in 2021 reached their peak score, with an average score of 93.52%. Then, in the following years, it consistently decreased, where in 2022 the average score was 89.29%, in 2023 the average score was 84.98%, and in 2024 the average score was 84.01%. In addition to the decline in the public satisfaction index, several Lagu application users also gave bad ratings and negative comments to the Lagu application via the Google Play Store. Cumulatively, the Lagu application only received a rating of 2.9 stars given by Lagu application users, whereas the Lagu application tends to receive more 1-star ratings from its users, as seen in Figure 3.

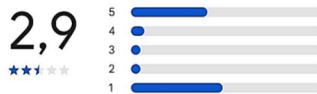


Figure 3. Layanan Tunggu Application Rating on Google Play Store

Source: Google Play Store, 2025.

Based on the context of this research, several problems can be researched based on the concept of a balanced e-government scorecard to determine the performance of online services by the Pekanbaru City Population and Civil Registration Office through the Lagu application, as well as the concept of an e-government maturity model to see the maturity level of the Lagu application. The results of a study conducted by Bertelsmann Foundation (2002) confirm that e-government can run well when the government balances services and participation, as evidenced by the concept of a balanced e-government scorecard comprising five dimensions.

- a. Benefits, which include the quality and quantity of services provided.
- b. Efficiency is related to how technology accelerates processes and improves service quality.
- c. Participation, which relates to stakeholder involvement.
- d. Transparency relates to information disclosure.
- e. Change management, which is related to the process of implementing and developing e-government.

The e-government maturity model is developed by practitioners and academics to measure the state of e-government in a mature context (Muftikhali & Susanto, 2017). Research by West (2011) suggests four stages of e-government maturity.

- a. The billboard stage, where the government uses websites to display information.
- b. The partial-service-delivery stage, where people can access a number of online services they need but are still limited.
- c. The portal stage, where e-government is fully integrated and can be accessed through a one-stop shop or on a single portal.
- d. The interactive democracy, where the e-government system is integrated with participation features through interactive two-way communication.

The above phenomenon is certainly interesting and important. It should be researched using a balanced e-government scorecard and an e-government maturity study because the decline in the public satisfaction index for the Lagu application indicates a gap between practice and its normative standards. Although e-government research has been widely discussed, this study is more interesting because it uses a concept that is still rarely used in other Indonesian studies. The main focus of this study is to analyze the extent of the performance and maturity of the Lagu application by the Pekanbaru City Population and Civil Registration Office.

2. Methods

The approach used in this study is qualitative with a descriptive type. According to Abdussamad (2021) qualitative research is a research approach in the social sciences that uses naturalistic paradigms, grounded in phenomenological theories, to examine social problems in a given area from the background and perspective of the object being studied holistically. Descriptive-type research tends to describe the meaning of data or phenomena that can be captured by researchers (Abdussamad, 2021). The research was conducted at the Pekanbaru City Population and Civil Registration Office, as an online service implementer through the Lagu application, which is still not in accordance with its normative.

The data used is primary data obtained from interviews with parties directly related to the Lagu application, namely, the Head of Data Utilization and Innovation, Head of the Service Section, and two IT staff members at the Pekanbaru City Population and Civil Registration Office, as well as with three users of the Lagu application. Interviews are needed to obtain data in the form of application development strategies; performance evaluations; public information; service transparency; infrastructure availability; dynamics faced; service processes; staff performance and readiness; technical constraints; interaction with the public; ease of use and access to services; availability of information and application status; and assessment of service speed, access, and service coverage.

Secondary data or data other than the results of interviews such as Pekanbaru Mayor Regulation Number 107 of 2021 and Pekanbaru Mayor Regulation Number 20 of 2024 which contains the purpose and function of the Lagu application, the official website of the Pekanbaru City Population and Civil Registration Office to see information about the Lagu application, the decree of the Head of the Pekanbaru City Population and Civil Registration Office to see the implementation of the Lagu application services, the Lagu application guidebook to understand the flow of services, the Standard Operating Procedures (SOP) to find out the steps or

instructions for the implementation of the Lagu application, and online news to obtain information.

The data collection techniques in this study included interviews and documentation. To ensure the validity of the findings and data, the researcher conducted methodological triangulation of interview results and documentation. Methodological triangulation involves collecting data in different ways to obtain the required data from the same source. Researchers compared interview data with documentation obtained from the Population and Civil Registration Service of Pekanbaru City. Statements given by informants will be systematically compared with each other and then compared again with normative documents to avoid data bias and increase the credibility of the findings.

The data analysis technique in this study uses the interactive model proposed by Miles et al. (2014), which consists of three stages carried out simultaneously: data condensation, data display, and conclusion drawing/verifying. These three stages are not linear but interactive, and they occur continuously throughout the research process. Data condensation is focusing and simplifying primary and secondary data to see *das Sein* and *das Sollen*. Data display is a collection of information that is organized and compressed so that we can take actions such as understanding what is happening, continuing the analysis, and drawing conclusions. Conclusions drawing/verifying, from the beginning of data collection, qualitative analysts begin to interpret the data by paying attention to patterns, explanations, cause-and-effect flows, and propositions. Because qualitative analysis is not just about telling but also about testing and strengthening interpretation systematically (Miles et al., 2014).

3. Results and Discussion

3.1. Layanan Tunggu Application Performance Based on the Balanced e-Government Scorecard

3.1.1. Benefits

Benefits are dimensions that can describe the gap in the quality and quantity of services provided compared to those offered to the people of Pekanbaru. Referring to the Pekanbaru Mayor Regulation Number 20 of 2024 concerning the Online Population Service System at the Population and Civil Registration Office, the benefit offered by the Layanan Tunggu (Lagu) application is to facilitate the processing of lost, damaged, and urgent e-ID card printing. Through the Lagu application, several changes in service conditions have been implemented, as shown in Table 3.

Table 3. Conditions Before and After the Lagu Application

Service Aspect	Before	After
Service system	Manual or face-to-face, starting from submission to printing of e-ID cards	Submission online, but still must be face-to-face when taking the e-ID card
Time/Process	Long/have to wait in line	Scheduled
Communication	In person	Through communication channels
Queue quota	It is limited, and the rest of the blanks are unknown to the public	It is limited, and the rest of the blanks can be known to the public
Submission status	Unknown	Knowable

Source: Processed Researcher, 2025.

Positively, Table 3 shows changes in conditions before and after the Lagu application, where submissions can be made without having to be face-to-face, the schedule for taking e-ID cards can be determined, the existence of communication

channels can be determined, and the availability of blanks can be found out (50 blanks per day). These changes in conditions are, unfortunately, degraded by three crucial findings that contribute to a consistent decline in public satisfaction with service users. The first finding shows that the Lagu application is an exclusive platform, available only to Android users, while iOS users cannot access it. The officer will direct iOS device users to the Sinopsis website to access services for printing lost, damaged, or urgent e-ID cards. The unavailability of the Lagu application for iOS users limits the reach of service beneficiaries. This means that the range of services provided is still limited. In their statement during the interview, the public expressed their regret that the Lagu application from 2021 to 2024 was still intended for Android users, as if there had been no progress at all. E-government should be able to provide services inclusively to both Android and iOS device users. The success of policy implementation is not only measured by the number of users but also by the extent to which the service is accessible to the entire community (Anugrah et al., 2025).

The second finding is the loss of features to address the urgency of e-ID cards. The loss of this feature is proof of a discrepancy between practice and its normative, namely, Pekanbaru Mayor Regulation Number 20 of 2024. Now the Lagu application is only available with two features, namely the feature for submitting a lost and damaged e-ID card. The feature for submitting an e-ID card for urgent needs was deliberately removed from the Lagu application because management considers it still ineffective to do so online. Based on the results of an interview with the Head of Data Utilization and Innovation of the Pekanbaru City Population and Civil Registration Office, as far as the Lagu application is running, most of the users of electronic identity card (e-ID) printing services who need the service are the elderly and other adults who are not familiar with the latest technology and tend not to understand the technical aspects. According to a study by Zainudin (2025), people's understanding of digital transformation remains low, leading them to feel the services provided are too complicated to use. The lack of understanding of some people, especially the elderly, of online services is a separate obstacle for the Pekanbaru City Population and Civil Registration Office in implementing and improving the Lagu application. The first step in providing public understanding of online services is to conduct socialization both online and in person (Amanda & Agusti, 2023). Therefore, e-government is not enough to provide advanced technology but must improve the quality of its community resources through supporting programs.

The third finding is a sharp discrepancy between the ease of the online application process and the collection of e-ID cards printed at the Pekanbaru City Population and Civil Registration Office. Although file submission can be done easily and simply, the quality of service of officers when submitting the e-ID card is considered less friendly. The ease of online submission is not worth it if offline services remain unfriendly and unresponsive. Research conducted by Amatulloh and Suryani (2021) suggests that even though services are carried out online, community satisfaction will also still be influenced by officer accountability. The weak integration of service quality between online and offline reduces the value of benefits from the Lagu application, leading some users with poor service experiences to complete a community satisfaction survey on the application. This is what makes the public satisfaction survey continue to decline until 2024.

3.1.2. Efficiency

The Lagu application demonstrates strong efficiency, issuing lost and damaged e-ID cards in less than 10 minutes. With the Lagu application, people can submit files to obtain new e-IDs and then choose a day to pick up the e-ID card issued by the Pekanbaru City Population and Civil Registration Office. The Lagu application allows applicants to choose a time to pick up their e-ID cards based on their availability. The feature for submitting required documents means there are no restrictions on space or time, so people do not have to go back and forth to handle and submit physical files, which can certainly save people time and money.

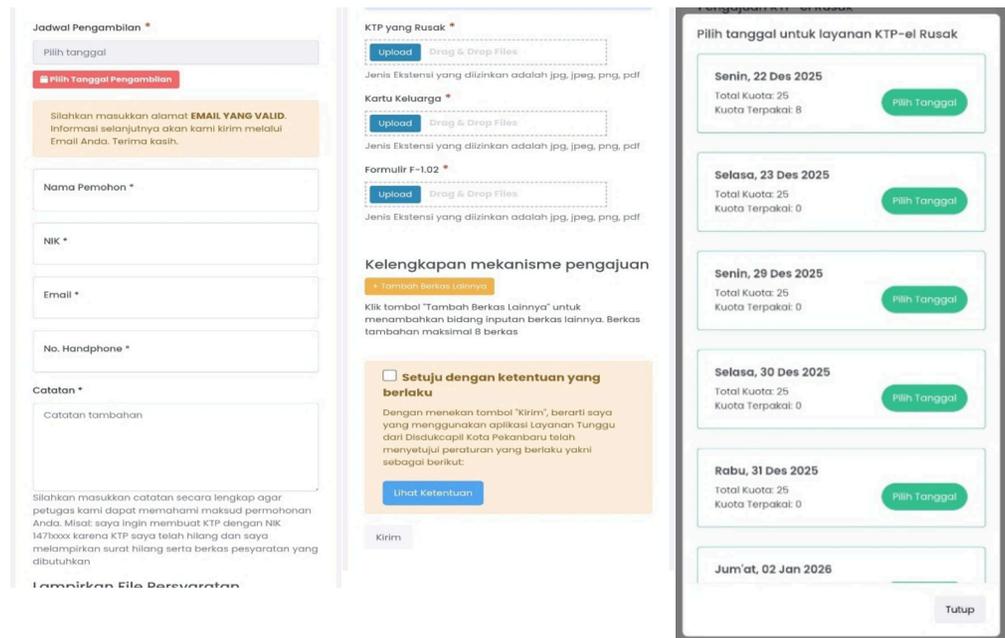


Figure 4. Display of Document Submission and Selection of the Day of Collection of e-ID Cards

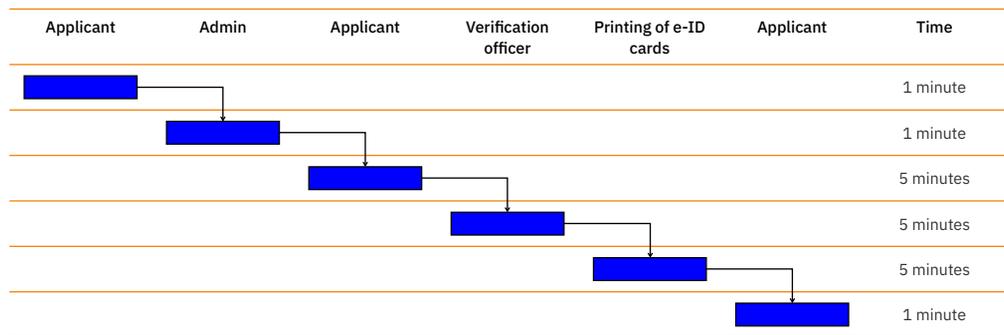
Source: *Layanan Tunggu Application*, 2025.

The pick-up time scheduling feature for applicants provides an effective, efficient mechanism for arranging pick-ups. Queue build-up will not occur because allowing the applicant to choose the pick-up time and the maximum number of blanks enables the accumulation of masses in the waiting room to be estimated, and the physical queue in the waiting room will not accumulate (Putri & Handrian, 2024). These conditions will create a conducive service environment for the community and officers.

The most significant efficiency is seen in the printing of new e-ID cards, which takes less than 10 minutes. File submission through the Lagu application can accelerate the file validation process, which is carried out online in the system before the applicant arrives. This makes the interaction process at the e-ID card collection counter purely for verification and submission of e-ID cards, so that the process lasts less than 10 minutes, in accordance with Lagu's standard operating procedures (SOP), as shown in Table 4.

The Lagu application has cut wait and processing times and drastically reduced queue lengths. This system proves that the convoluted, time-consuming bureaucracy can be overcome through an optimized submission and scheduling process. This means that the process of submission by the applicant, validation by

Table 4. Standard Operating Procedures (SOP) of the Lagu



Source: Pekanbaru City Population and Civil Registration Office, 2025.

the admin, the applicant receiving a receipt, the officer verifying the applicant at the counter, the officer printing the e-ID card, and the handover of the e-ID card carried out by the officer to the applicant can run effectively and efficiently in accordance with the standard operating procedures (SOP) of the Lagu.

3.1.3. Participation

The participation dimension concerns stakeholder involvement in running the Lagu application. By 2024, the Lagu application will have been downloaded on more than 50,000 devices (Putri & Handrian, 2024). Based on previous data, only 26,819 Lagu application downloaders actually used the services offered. This shows that there is an adoption gap of almost 50% due to unmet expectations, such as the loss of features to address urgent e-ID cards, and that many people are not very familiar with this online service. Hence, they are reluctant to start applying. As one of the interviewed residents said, he felt a little disappointed when he tried to use the urgent e-ID printing feature, only to find it was no longer available, and was forced to go to the Pekanbaru City Population and Civil Registration Office to process it offline. In addition, the head of the service section of the Pekanbaru City Population and Civil Registration Office stated that from 2024 until now, the feature for processing e-IDs has been eliminated and replaced with Independent Waiting Service, where people can come to the office to process urgent e-IDs.

Some users are still using conventional services because they lack understanding of these online services. In line with the results of research conducted by E. Wargadinata and Tendean (2024), in Indonesia, there is still a large digital literacy gap, even though the ownership of smart mobile devices is already high, reaching 128% of the population; their use is not directly proportional to their ability to manage public administration.

From 2022 to January 2024, the Pekanbaru City Population and Civil Registration Office entered into a cooperation agreement with online motorcycle taxi services, integrating the lost, damaged, and urgent e-ID card printing service into the Lagu application. The Pekanbaru City Population and Civil Registration Office have made a breakthrough by establishing a cooperation agreement with Grab, a third-party service provider, to provide e-ID card-related services. In the end, the collaboration was not continued due to the new SOP, which required the applicant to come directly to submit the receipt, take the e-ID card, and hand over the damaged e-ID card (if any).

The ability to choose the e-ID card pick-up time is also a reason, as the applicant is very flexible with time management. The Pekanbaru City Population and Civil Registration Office, in this case, is trying to be adaptive in the use of the Lagu

application. E-government must be run flexibly and adaptively, taking into account community criticism, input, and demands. Unfortunately, the Lagu application still does not have a feature to submit feedback, suggestions, or demands directly, so people can only comment through the Google Play Store. The use of e-government should balance online public services and online public participation; if this is not possible, there are two possibilities: either the government is not ready, or the public is not used to it (Indrajit et al., 2007).

3.1.4. Transparency

The transparency dimension in the Lagu application functions quite effectively in conveying information in the form of required documents, submission mechanisms, remaining blanks, submission status, and communication channels. The public can find information on the requirements documents and submission mechanism in the application's initial menu. The Lagu application displays information about the documents, requirements, and service submission mechanisms in a simple, structured, and easy-to-understand manner. Displaying information serves as pre-service education, helping applicants complete and understand the submission flow, thereby reducing rejections during the admin validation process. The results of interviews with two Lagu application users revealed that information regarding requirements and the application process is presented clearly and simply in the Lagu app's menu, as is the availability of remaining forms. This makes it easy to understand the requirements, application process, and remaining forms each day.

Users of the Lagu application can also see the number of blanks that have been used and those that are still available. Information about the pickup date and time is also listed on the Lagu application. The remaining blank data submitted to the applicant represents a breakthrough that effectively suppresses the possibility of scalping. Because the public can validate themselves through the Lagu application. According to Margareta et al. (2025), the transparency aspect in the form of service information in the use of e-government must be considered in order to maintain the quality of services provided to the community. Because the user community will feel more practical when their needs for general information about services can be met without having to come to the office.

The Lagu application also provides status information for submitted items. The status the applicant can see makes it easier for him to track the progress of his application. This information provides the applicant with certainty about the uploaded file. If the applicant's application is rejected, then the status will be written as "rejected" along with the record, and vice versa. Allowing the service user community to track the status of their application can improve the quality of service (Indrajit et al., 2007). The availability of information on the status of the application on the Lagu application makes the service more attractive, as users do not need to waste time and money travelling to the office to find out the extent to which their application is being processed.

The Lagu application also provides a communication channel via WhatsApp that serves as a forum for users to ask questions about services. In addition to communication channels, the Lagu application also contains a menu to conduct a survey of public satisfaction with the services they have used. Service users can complete and view the results of the public satisfaction survey via the Lagu application at any time.

3.1.5. Change Management

The change management dimension shows a management pattern that tends to be passive in managing the Lagu application ecosystem. There are findings in the managerial pattern of the Lagu application, namely that the management cycle is not carried out regularly or scheduled, but only when a bug or error occurs. The updates carried out are also irregular and unscheduled.

One of the programmers in the Data Utilization and Service Innovation Division of the Pekanbaru City Population and Civil Registration Office stated that the maintenance and development of the Lagu application are not carried out regularly, and there is no dedicated schedule for updating the application. The infrequent updates make the application feel stagnant, and there are no changes, which is also one of the reasons public satisfaction surveys have experienced a consistent downward trend.

The use of e-government actually requires routine and scheduled change management so that the government is able to adopt ICT in providing services more ideally (Purwanto et al., 2025). Because through routine and scheduled change management, the government can prepare for the maintenance and development of e-government well.

3.2. Layanan Tunggu Application Maturity

A discussion of the performance of the Layanan Tunggu (Lagu) application, which uses the five dimensions of the balanced e-government scorecard, can be elaborated using the e-government maturity model to assess the level of maturity in the use of the Lagu application by the Pekanbaru City Population and Civil Registration Office. The maturity level is seen through the results of Darrell M. West's research on the e-government maturity model. Where the Lagu application is still in stage 2, namely the partial-service-delivery stage, and has not yet moved to stage 3, namely the portal stage, or reached stage 4, namely the interactive democracy.

The findings discussed under the dimensions of benefits, efficiency, and transparency show that the Lagu application by the Pekanbaru City Population and Civil Registration Office has passed stage 1, namely the billboard stage. The Lagu application is not only a static, monotonous information board but also provides services to handle lost and damaged e-ID cards, and it already has communication channels, which are now at stage 2, namely the partial-service-delivery stage. West (2011) said that e-government at this stage provides opportunities for people to access a number of online services that they need but are still limited. The public can find the information they want, and if the information they need is not listed on the website, then the public can request it through communication channels. This stage is more flexible than the first stage. Based on the results of interviews with IT staff at the Pekanbaru City Population and Civil Registration Office, the Lagu application is not an application that includes centralized services, but rather only a few services following Mayor Regulation Number 20 of 2024.

The findings on the benefits and change management dimensions manifest pseudo-maturity. Because the Lagu application is only accessible to Android users, this creates a barrier for iPhone/iOS users to access its services. A mature e-government should not be exclusive but must be inclusive. The most critical finding in this study is the removal of one of the features in the Lagu application. Applications that have provided services in accordance with the Pekanbaru Mayor Regulation Number 20 of 2024 must not run in accordance with the Mayor Regulation. The IT staff of the Pekanbaru City Population and Civil Registration Service stated that the

urgent e-ID processing feature will most likely remain unavailable because a new counter has been created specifically for processing it. The feature of handling urgent e-ID card requests was removed from the Lagu application, and a new counter, the Independent Waiting Service, was opened to handle them offline. Due to pseudo-maturity, it is difficult for the Lagu application to move up to stage 3, namely the portal stage. Phase 3 requires e-government that is integrated into each service so that people can access many services without having to switch to other portals (West, 2011).

The findings described above are the main reasons public satisfaction with the Lagu application has consistently declined from 2021 to 2024. Three of the five dimensions of the balanced e-government scorecard show performance that has not been maximized. Two dimensions that run quite well and solidly degrade, so this makes the Lagu application insufficient to increase user satisfaction.

The maturity of the pseudo-Lagu application in the second stage is also another reason why the community satisfaction index has consistently declined. The reduction in the number of services, such as urgent e-ID card matters and cooperation agreements with Grab companies, makes the maturity of the Lagu application less visible as it heads towards the next stage. The ideal e-government maturity should increase over time. Because the level of readiness for bureaucratic transformation towards digital will greatly affect the quality of online servers, and will achieve sustainable, agile, simple, cutting-edge technology and increased trust (Joshi & Islam, 2018).

The use of the Layanan Tunggu (Lagu) application should be a breath of fresh air for the bureaucracy at the Pekanbaru City Population and Civil Registration Office. The consistent decline in the community satisfaction index shows that the service via the Lagu application has not met the wishes of many users. Because the satisfaction and happiness of the service user community depend on the system's ability to meet good service standards (Dytihana et al., 2025).

The Pekanbaru City Population and Civil Registration Office should be able to run servers via the Lagu application effectively and efficiently, ensuring excellent service in accordance with applicable regulations. The public will feel satisfied if the government meets their needs through a bureaucracy that is neither fat nor convoluted. Because if e-government is implemented properly, it will produce quality services, which will ultimately lead to good governance (Irmawan & Azis Muslim, 2023).

4. Conclusion

The decline in the public satisfaction index for services via the Lagu application, which occurred consistently from 2021 to 2024, was caused by the failure of the Pekanbaru City Population and Civil Registration Office to maintain high performance, as well as the application's pseudo-maturity. The balanced e-government scorecard shows weaker performance across several dimensions, indicating that the Lagu application is not optimal in providing services.

The benefits dimension shows the gap between reality and its normative, namely, applications that can only be accessed by Android users, the loss of features to support e-ID cards with urgent needs, and the presence of officers who provide less friendly offline services. The efficiency dimension shows solid performance because the Lagu application runs according to SOP, so that the server process can be accelerated, and makes the cost of taking care of files more economical because there is no need to go back and forth, just upload it to the application. The

participation dimension shows a decrease in performance due to the termination of the cooperation agreement with Grab, which means the applicant must still come to the location to collect the e-ID card. The transparency dimension of the Lagu application functions effectively in conveying information about required documents, submission mechanisms, remaining blanks, submission status, and communication channels. The change management dimension shows that the governance of data utilization and server innovation shows a pattern that tends to be passive in managing the Lagu application ecosystem, with no clear time to maintain and develop the Lagu application.

The maturity level of the Lagu application, seen from the perspective of the e-government maturity model of Darrell M. West, has passed stage 1, namely the billboard stage, and is stuck in stage 2, namely the partial-service-delivery stage, when it wants to go to stage 3, namely the portal stage, and is very far from being able to reach stage 4, namely the interactive democracy. These findings indicate that there is a need for reform in program innovation at the Pekanbaru City Population and Civil Registration Office through more inclusive application development, revitalization of partnerships with third parties, and transformation of maintenance management and application development to be more proactive and responsive to community feedback.

4.1. Research Limitations

This research is limited to the object of research, namely the Lagu application by the Pekanbaru City Population and Civil Registration Office, with specific demographic characteristics and internet infrastructure. The results of the performance and maturity of the Lagu application cannot necessarily be generalized to describe the condition of e-government in other cities or districts, given limited resources and the varying commitments of different leaders. In addition, this study does not include program recommendations for the Pekanbaru City Population and Civil Registration Office.

4.2. Suggestions for Future Research

Given that the performance of the Lagu application is still not solid and the service has not yet reached maturity at stage 3, further research is recommended to examine aspects of collaborative governance. The research can focus on the obstacles that prevent the Lagu application from achieving a solid, pseudo-mature performance. Then, the next researcher can also include program recommendations based on the results of the research conducted.

Acknowledgment

The researcher realizes that in the process of preparing this scientific article will not be done properly without someone to guide and provide input. Therefore, the researcher would like to express his deepest gratitude to Dr. Baskoro Wicaksono, S.IP., M.IP., for his guidance and input. Gratitude is also not missed by all employees of the Pekanbaru City Population and Civil Registration Office, who have helped in providing information and direction during the conduct of this research.

References

- Abdussamad, Z. (2021). *Metode Penelitian Kualitatif*. CV. Syakir Media Press.
- Amanda, D., & Agusti, F. R. (2023). Pengembangan Pelayanan Publik Melalui E-Government: Kasus Implementasi Aplikasi SIANTON di BPN Kota Pekanbaru. *Journal of Administration Studies*, 1(1), 30–40.
-

- Amatulloh, D., & Suryani, D. A. (2021). Analisis Penerapan E-Government dalam Meningkatkan Kualitas Pelayanan Administrasi Kependudukan pada Mal Pelayanan Publik Bojonegoro. *Jurnal Ilmu Administrasi Publik*, 3(2), 87–107. <https://doi.org/https://doi.org/10.14710/halal.v%vi%i.12267>
- Anugrah, I. K., Almahdhar, S. M. R., Nurraniyah, S., Kamil, R. R., & Darmawan, I. (2025). Implementasi dan Tantangan Sistem Pemerintahan Berbasis Elektronik (SPBE) melalui Aplikasi SALAMAN dalam Mewujudkan Transformasi Digital Pemerintahan Kota Bandung. *Jurnal Penelitian Nusantara*, 1(12), 931–937. <https://doi.org/10.59435/menulis.v2i1.882>
- Bertelsmann Foundation. (2002). *Balanced E-Government: E-Government-Connecting Efficient Administration and Responsive Democracy*.
- Dytihana, Z. A., Fahlevi, M. R., & Zahrati, W. (2025). From Bureaucracy to Efficiency: The Impact of Licensing Service Quality on Increasing Regional Investment: A Case Study at the Pekanbaru Public Service Mall. *Jurnal Bina Praja*, 17(2). <https://doi.org/10.21787/jbp.17.2025-2560>
- Firdaus, I. T., Tursina, M. D., & Roziqin, A. (2021). Transformasi Birokrasi Digital di Masa Pandemi Covid-19 untuk Mewujudkan Digitalisasi Pemerintahan Indonesia. *Kybernan: Jurnal Studi Kepemerintahan*, 4(2), 226–239. <https://doi.org/10.35326/kybernan.v4i2.1244>
- Indrajit, R. E., Rudianto, D., & Zainuddin, A. (2007). *Electronic Government in Action*.
- Irmawan, I., & Azis Muslim, M. (2023). Literature Review of Information System Success Models in E-government Evaluation. *International Journal of Politics and Sociology Research*, 11(1), 84–93. <https://doi.org/10.35335/ijopsor.v11i1.95>
- Joshi, P. R., & Islam, S. (2018). E-Government Maturity Model for Sustainable E-Government Services from the Perspective of Developing Countries. *Sustainability*, 10(6), 1–28. <https://doi.org/10.3390/su10061882>
- Karya, M. A., Haryono, B. S., & Sujarwoto. (2024). Digitalization and Innovation of the Service Process: The Efforts to Improve the Quality of Higher Education Services in Kalimantan Island. *Jurnal Bina Praja*, 16(1), 69–81. <https://doi.org/10.21787/jbp.16.2024.69-81>
- Kurnia, T. S., Rauta, U., & Siswanto, A. (2018). E-government dalam Penyelenggaraan Pemerintahan Daerah di Indonesia. *Masalah-Masalah Hukum*, 46(2), 170–181. <https://doi.org/10.14710/mmh.46.2.2017.170-181>
- Manoby, W. M., Afriyanni, A., Fitri, S. E., Pranasari, M. A., Setyaningsih, E., Rosidah, R., & Saksono, H. (2021). Digital Village: The Importance of Strengthening Village Resilience in the Digital Age. *Jurnal Bina Praja*, 13(1), 53–63. <https://doi.org/10.21787/jbp.13.2021.53-63>
- Margareta, Putri, A. V., Maskut, D. N., Kwuta, R. M., & Sipayung, B. (2025). Tarakan Smart City: Meningkatkan Transparansi dan Akuntabilitas Layanan Publik melalui E-Government. *Tumoutou Social Science Journal*, 2(1), 61–73. <https://doi.org/10.61476/jcm2fw95>
- Miles, M. B., Huberman, A. M., & Saldaña, J. (2014). *Qualitative Data Analysis: A Methods Sourcebook*. Sage Publications.
- Muftikhali, Q. E., & Susanto, T. D. (2017). Kumpulan Model Maturity E-Government: Sebuah Ulasan Sistematis. *Jurnal Teknologi Informasi dan Ilmu Komputer*, 4(4), 311–317. <https://doi.org/10.25126/jtiik.201744367>
- Muliawan, M. A., & Harirah, Z. (2024). Analisis Aplikasi “Pekanbaru dalam Genggaman” Kaitanya pada Digitalisasi Pelayanan Menggunakan Pendekatan Harvard JFK School of Government. *Journal of Government Science (GovSci): Jurnal Ilmu Pemerintahan*, 5(2), 64–78. <https://doi.org/10.54144/govsci.v5i2.60>
- Ochoa-Urrego, R.-L., & Peña-Reyes, J.-I. (2021). Digital Maturity Models: A Systematic Literature Review. *LUT Scientific and Expertise Publications*, 71–85. https://doi.org/10.1007/978-3-030-69380-0_5
- Prakoso, C. T. (2020). Inovasi Layanan Publik di Dinas Kependudukan dan Catatan Sipil Kabupaten Kutai Kartanegara dalam Perspektif Digital Government. *Jurnal Paradigma*, 9(2), 131–146. <https://doi.org/10.30872/jp.v9i2.5486>
- Purwanto, B. A., Putri, T. S., Indrayani, E., & Abrory, Y. (2025). Governance Innovation Through SiMAWAS: Impact Analysis and Service Enhancement for Strengthening Internal Supervision. *Jurnal Bina Praja*, 17(3). <https://doi.org/10.21787/jbp.17.2025-2671>
- Putri, R. M., & Handrian, E. (2024). E-Government Quality Aplikasi Layanan Tunggu (LAGU) di Dinas Kependudukan dan Pencatatan Sipil Kota Pekanbaru. *Journal of Public Administration Review*, 1(2), 1057–1073. <https://journal.uir.ac.id/index.php/jpar/article/view/18818>
- Rahmadany, A. F. (2021). Literature Study of Electronic Government Implementation in the Perspective of Indonesia’s Electronic Government Ranking Dimensions. *Jurnal Bina Praja*, 13(2), 281–292. <https://doi.org/10.21787/jbp.13.2021.281-292>
-

- Saksono, H. (2024). Inclusive Strategies to Bridge the Digital Gap: A Case Study of 9 Archipelago Provinces in Indonesia. *Jurnal Bina Praja*, 16(3), 629–638. <https://doi.org/10.21787/jbp.16.2024.629-638>
- The United Nations E-Government Survey. (2022). *E-Government Survey 2022: The Future of Digital Government*.
- Wargadinata, E., Aly, E. S., & Alma'arif, A. (2022). Evaluation of Jakarta Province in Information and Technology Management. *Jurnal Bina Praja*, 14(3), 453–464. <https://doi.org/10.21787/jbp.14.2022.453-464>
- Wargadinata, E., & Tendean, N. R. P. (2024). Amidst the Euphoria of Digitalization Public Services in Municipal Government: Raising Public Acceptance. *Jurnal Bina Praja*, 16(2), 335–346. <https://doi.org/10.21787/jbp.16.2024.335-346>
- West, D. M. (2011). *Digital Government: Technology and Public Sector Performance*. Princeton University Press. <https://doi.org/10.1515/9781400835768>
- Wicaksono, B., Asta, R., & Rafi, M. (2021). Comparative Study: Dimension Policy of Smart People in Metropolitan City of Bandung, Jakarta, and Pekanbaru. *Jurnal Bina Praja*, 13(1), 93–103. <https://doi.org/10.21787/jpb.13.2021.93-103>
- Zainudin, Z. (2025). Digital ID Policy in Support of Digital Transformation in Indonesia. *Jurnal Bina Praja*, 17(1), 1–18. <https://doi.org/10.21787/jbp.17.2025.1-18>
- Zubaidah, E., Monalisa, Rusadi, S., & Handoko, T. (2024). E-Readiness Analysis to Accelerate Transformation Towards E-Government in Regional Government in Indonesia: Case Study of the Government of Indragiri Hulu Regency of Riau Province. *Jurnal Bina Praja*, 16(1), 37–53. <https://doi.org/10.21787/jbp.16.2024.37-53>
-