



## Implementation of e-Government in Administrative Services at the Bangunrejo District Office

Nova Pratiwi Rahmadayanti, Sri Hartati

Prodi Sistem Informasi, Institut Bakti Nusantara, Lampung

Jalan Wisma Rini, No.09 Pringsewu, Lampung, Indonesia

\*novapraty23@gmail.com

Article	Abstract
<p><b>Keywords:</b> e-Government; Public Services; Digital Transformation; Governance; Bangunrejo District</p> <p><b>Article History</b> Received: Feb 20, 2024; Reviewed: Feb 27, 2024; Accepted: Mar 14, 2024; Published: Mar 30, 2024.</p>	<p>The implementation of e-Government in Bangunrejo District represents an innovative effort to enhance the quality of public services through digital technology. This system has improved administrative efficiency, expanded service accessibility, and increased government transparency. The results show a significant rise in public satisfaction, as services become faster, more convenient, and more secure. Furthermore, e-Government strengthens data protection and minimizes administrative errors. Despite challenges such as limited internet infrastructure and low digital literacy among citizens, strategic initiatives such as training programs and infrastructure development have been key to its success. Overall, the implementation of e-Government in Bangunrejo District has proven effective in realizing modern, transparent, efficient, and inclusive public services, supporting better governance that is responsive to community needs.</p>

©2024; This is an Open Access Research distributed under the term of the Creative Commons Attribution Licencee (<https://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original works is properly cited.

### INTRODUCTION

In the era of digitalization, the application of information technology is a fundamental need to improve the efficiency and effectiveness of public services. One form of innovation in this regard is the implementation of e-Government, which aims to support the government administration process to be more transparent, fast, and accountable. (Purnamasari, 2017) The Government of Indonesia has launched various strategic policies to strengthen e-Government through Presidential Regulation Number 95 of 2018 concerning Electronic-Based Government Systems (SPBE) (Ditasman, 2024). (Purnamasari, 2017) Regulations that encourage government agencies to utilize information technology have the main goal of increasing the efficiency and effectiveness of public services. (Dedi et al., 2019) With information technology, government agencies can provide faster, transparent, and accountable services. For example, people can access various services online, such as document registration, complaints, and other public service information without having to come directly to the office. The use of information technology also allows for better data collection and analysis, which can be used for policy planning and decision-making. This is important to ensure that the policies taken are in accordance with the needs of the community. (Indrajit, 2005) In addition, information technology facilitates better communication between the government and the public, so that the public can provide constructive input and feedback.

(Cecep Juliansyah Abbas, 2016; Fatmawati, Irviani et al., 2016; Lestari et al., 2019) At the regional level, this regulation encourages innovation and collaboration between local governments and the private sector in developing technology solutions. Thus, government agencies at all levels are expected to be able to adapt to rapid technological developments and meet public expectations for better and responsive public services. The success of the implementation of this regulation is highly dependent on the commitment and capacity of human resources in each agency.

The implementation of e-Government in Bangunrejo District, Central Lampung Regency, faces a number of challenges even though the need for information technology in public services is very urgent. One of the main challenges is the limitations of technological infrastructure. Many areas in Bangunrejo District do not have adequate internet access, thus hindering people in accessing online services. In addition, the lack of understanding and skills of human resources in government agencies is also an obstacle. Many government employees are not familiar with the use of technology, so they have difficulty in implementing the e-Government system effectively. This results in public services not running optimally, even though the system has been implemented. On the other hand, local governments also need to increase awareness of the importance of e-Government among the community. Without the support and active participation of citizens, these initiatives are difficult to succeed. Therefore, intensive training and socialization are needed to increase employee capacity and involve the community in the transition process to a more modern public service. By overcoming this challenge, Bangunrejo District can utilize e-Government to improve services and meet people's expectations for better services.

The challenges in the implementation of e-Government in Bangunrejo District are very diverse, with several main obstacles that need to be overcome. First, the limitation of technological infrastructure is a significant problem. Many areas in Bangunrejo District do not have a stable and fast internet network, so people's access to online services is hampered. Without adequate infrastructure, e-Government initiatives are difficult to implement effectively. Second, the low level of digital literacy among the public and government employees is also an obstacle. Many residents are not used to using information technology, so they have difficulty taking advantage of the services provided online. In addition, government employees who do not have adequate digital skills are often unable to operate the e-Government system properly, which has an impact on the quality of service. (Jaya, 2011; Pada et al., 2018; Sari, 2013; Susilo, 2017) The lack of competent human resources in the field of information technology is also an obstacle. Many government agencies lack experts who are able to manage and maintain the e-Government system. To overcome these challenges, joint efforts are needed between the government, the community, and the private sector to improve infrastructure, digital literacy, and human resource capacity so that e-Government can run well and provide maximum benefits for the community.

The implementation of e-Government in Bangunrejo District offers significant opportunities that can improve the quality of public services and empower the community. One of the main advantages is support for information disclosure. With digital platforms, people can easily access information about government policies, programs, and services. This transparency not only increases public trust, but also allows the public to better understand their rights and obligations. In addition, e-Government speeds up the administrative process. With an online system, document submission and service requests can be done efficiently without having to queue at government offices. This faster process reduces the bureaucracy that is often an obstacle in public services. The community can receive more responsive and timely services. (Holle, 2011; Kominfo, 2017) The implementation of e-Government also

encourages community participation in decision-making. Through digital platforms, residents can provide input, suggestions, or even participate in discussion forums about policies taken by the government. This creates space for the community to be actively involved in the government process, so that the decisions taken better reflect the needs and aspirations of the community. By taking advantage of this opportunity, Bangunrejo District can create a government that is more inclusive and responsive to its citizens.

An in-depth study is needed to evaluate the implementation of e-Government in Bangunrejo District in order to understand the effectiveness and challenges faced. First, an analysis of the extent to which this system has been implemented is essential. This includes an assessment of existing infrastructure, the use of technology by government employees, and the level of community participation in utilizing digital services. Furthermore, identifying the obstacles faced during the implementation process is a crucial step. Challenges such as limited infrastructure, low digital literacy, and lack of experts in the field of information technology need to be noted in detail. Understanding these barriers will help in formulating the right solution. After identifying challenges, strategic steps should be formulated to optimize the e-Government system. This can include training for government employees to improve digital skills, investment in technology infrastructure, as well as socialization programs to improve people's digital literacy. In addition, collaboration with the private sector and educational institutions can also be an effective strategy. With these steps, Bangunrejo District can maximize the potential of e-Government to improve public services and empower the community.

## **METHOD**

### **Data Collection Methods**

The qualitative data collection method aims to understand social phenomena in depth based on the perspective of the individuals or groups involved in a particular context. In this study, a qualitative approach was used to explore the application of e-Government in public services in Bangunrejo District, Central Lampung Regency. Some of the main methods used include:

1. **Interview**

In-depth interviews were conducted with parties directly involved in the implementation of e-Government, such as local government officials, village heads, and technical staff who manage the digital system. This method aims to explore information about their experiences, barriers, and views on the effectiveness of e-Government in public services. Semi-structured interview guidelines are used to provide flexibility, so that informants can provide information more freely but still be relevant to the focus of the research.

2. **Observation**

The observation was carried out by directly observing the public service process using the e-Government system in Bangunrejo District. The researcher recorded how the system was implemented, the level of community participation, and the obstacles faced in daily operations. These observations provide contextual data that support the findings of the interviews.

3. **Documentation**

Qualitative data is also collected from official documents, such as annual reports of local governments, policies related to e-Government, and statistical data on public services. Documentation analysis helps to understand the policies that have been implemented and provides supporting data for interviews and observations.

## System Development Methods

System development methods are the frameworks used to design, build, and implement systems in a structured manner. In the context of research on the implementation of e-Government in Bangunrejo District, Central Lampung Regency, the system development method used aims to improve the quality of public services through information technology-based innovations. Here are the steps to develop the system based on the relevant approach:

1. **Needs Analysis**  
The initial stage is to identify the needs of various stakeholders, such as service users and government officials. This method involves collecting data through interviews, surveys, and observations to understand the main problems in public services that can be solved through e-Government.
2. **System Design**  
Once the needs are identified, the system is designed with functionality and an easy-to-use interface in mind. This design includes creating *flowcharts*, data *flow diagrams*, and initial prototypes to illustrate how the system will work. The system is designed to be compatible with existing technology infrastructure and easily accessible to the public.
3. **Development and Implementation**  
At this stage, the e-Government system is built based on the design that has been made. The development process involves creating applications or digital platforms that support public services, such as online registration, complaint systems, and access to information. Testing is done internally to ensure the system functions to specification before implementation.
4. **System Testing and Evaluation**  
Once the system is implemented, testing is carried out to evaluate its reliability, efficiency, and effectiveness. The trial involves the community as service users to ensure that the system runs as needed. The results of the evaluation are used to correct shortcomings or adjust features to be more relevant to local needs.
5. **Maintenance**  
The final stage is to ensure the system remains functioning properly through regular maintenance and technology updates. This maintenance includes bug fixes, feature improvements, and adaptation to evolving societal and technological needs.

## RESULTS AND DISCUSSION

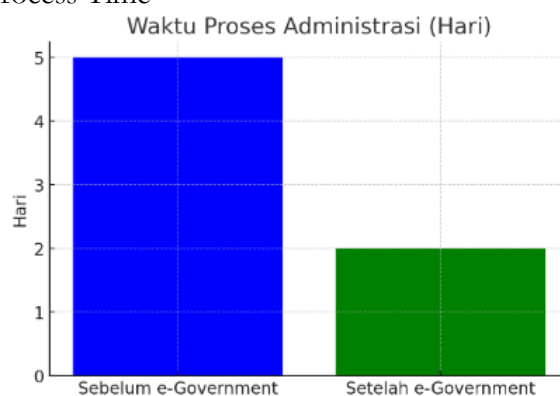
The implementation of e-Government in Bangunrejo District, Central Lampung Regency, has had a significant impact on various aspects of public services. One of the main results seen is the increase in efficiency in the administrative process. Before the existence of e-Government, people had to come directly to the sub-district office, queue for a long time, and spend time taking care of various administrative documents, such as making ID cards, certificates, birth certificates, and others. With the online system, people can now apply digitally, reducing the time-consuming process. This not only saves time and effort for the community, but also reduces the administrative burden that must be handled by officers in the sub-district. Another advantage of implementing e-Government is ease of access and flexibility. Public services that previously required people to come to the sub-district office, can now be accessed anytime and anywhere as long as they are connected to the internet. This makes it very convenient for people who have limited time or those who live far from the sub-district office. e-Government services allow busy people or those in remote areas to continue to have equal access to public services.

However, the implementation of this system is not entirely without challenges. One of the main obstacles is inadequate infrastructure, especially in remote areas in Bangunrejo District. Although the internet has become an important part of daily life, there are still areas that

struggle to access a stable and fast internet network. This causes some people to find it difficult to make optimal use of e-Government, considering the many services that require an internet connection. The positive impact that is most felt by the community is the convenience and speed in obtaining services. The public expressed higher satisfaction because the process of submitting administrative documents is now faster, does not have to go through long queues, and can be done at any time. This provides a sense of appreciation and increases the level of satisfaction with the services provided by the sub-district government.

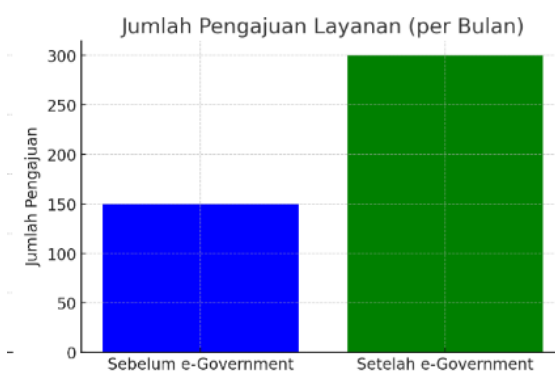
However, challenges in the use of technology also remain. Some people, especially those who are older or who do not have access to electronic devices, have difficulty operating the e-Government system. Therefore, it is important for the sub-district to provide counseling and training to the community, so that they can make good use of technology and can access services easily. The implementation of e-Government also has a positive impact on government performance. With the reduction of manual administrative burden, sub-district employees can focus more on other strategic tasks, such as development planning and community empowerment (Yuanda, 2013).

#### 1. Administration Process Time



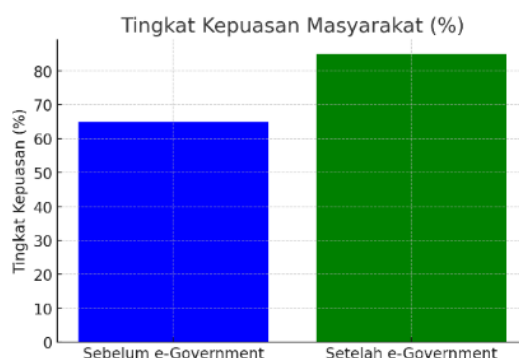
Before the implementation of e-Government, people in Bangunrejo District had to spend 3 to 5 days to complete various types of administration, such as the management of ID cards, birth certificates, and other documents. This long process often interferes with busy community activities, especially for those who have to leave their jobs to come to the sub-district office. However, with the e-Government system, the administrative process can now be completed within 1 to 2 days. The implementation of e-Government in Bangunrejo District has shown very significant efficiency, with a reduction in administrative document processing time by up to 40%. Previously, people often had to spend days completing various administrative processes, which not only drained their energy but also took up their productive time. With the existence of a digital system, people can now access services online, speeding up the process of submitting and processing documents.

#### 1. Number of Service Applications



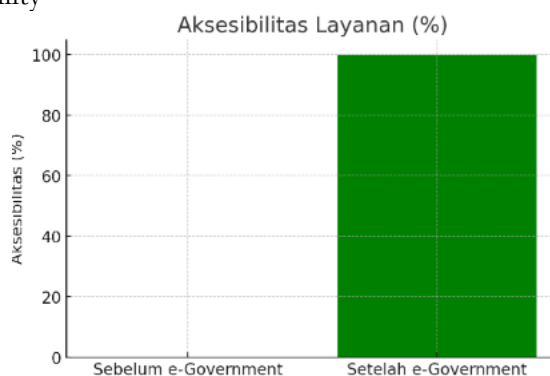
Before the implementation of e-Government, the number of service applications recorded in Bangunrejo District was only around 150 per month. These submissions are usually done in person, which requires long queues and time. However, after the implementation of e-Government, people can apply online, either through applications and sub-district websites. This caused the number of submissions to increase significantly to 300 submissions per month, which recorded an increase in community participation of 100%. The convenience offered by e-Government in Bangunrejo District encourages more people to take advantage of the available services. This not only increases the accessibility of services, but also expands public participation in administrative processes (Ikawati, 2025).

## 2. Community Satisfaction Level



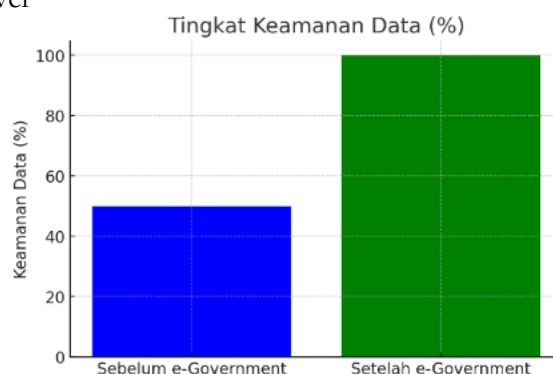
Before the implementation of e-Government, the level of public satisfaction with services in Bangunrejo District was recorded at only 65%. People often find it difficult because they have to come in person and wait in long queues. However, after the e-Government system was implemented, the level of public satisfaction increased to 85%. This shows an increase of 30%, which reflects the positive acceptance from the public of the change. Public satisfaction with public services in Bangunrejo District has increased significantly thanks to the implementation of e-Government. Faster service is one of the main factors driving this satisfaction. With a digital system, the process of submitting and processing documents can be completed in a much shorter time than conventional methods (Tri imbrani, 2022). People no longer have to wait for days to get the services they need.

### 1. Service Accessibility



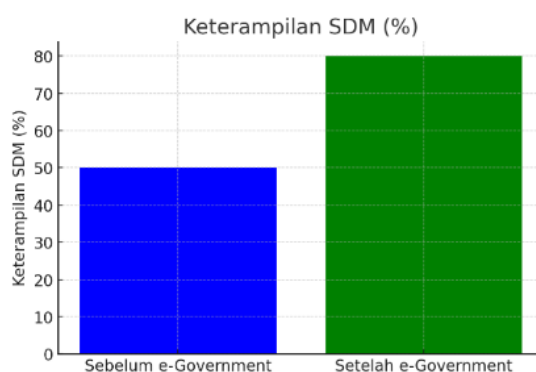
Before the implementation of e-Government, people who want to access public services must come directly to the sub-district office. This of course limits access, especially for those who live far away or have limited time. However, after the implementation of e-Government, services can now be accessed online 24 hours a day and 7 days a week. The implementation of e-Government in Bangunrejo District has brought significant changes in the accessibility of government services for the community. With the digital system implemented, residents can now access various services anytime and anywhere, without having to come directly to the sub-district office. This is very beneficial, especially for those who have a busy schedule or limited time.

## 2. Data Security Level



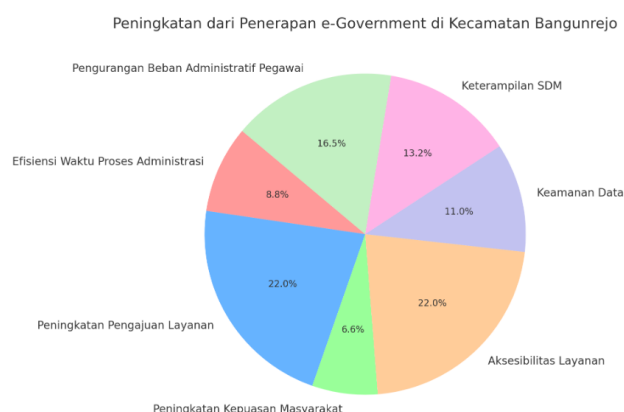
Data security is one of the important aspects of the e-Government system. Prior to implementation, the level of data security was considered low due to the lack of an adequate protection system. This is a concern for people who are worried about the confidentiality of their personal data. Once the e-Government system was implemented, data protection was upgraded to an intermediate level, with the use of better encryption and authentication systems. Although the implementation of e-Government in Bangunrejo District has shown a lot of progress in terms of efficiency and accessibility, there is still room for improvement, especially in the security aspect of the system. With the increasing use of digital services, the risk of data leakage or misuse is a major concern. Therefore, it is important for the government to ensure that the systems used are not only fast and accessible, but also secure.

## 3. HR Skills



Before the implementation of e-Government, only about 50% of officers in sub-districts were trained to operate this new system. This hinders operational efficiency, as untrained officers may have difficulty using the device or handling technical issues. After the implementation of e-Government, the sub-district held training for employees to improve their skills in using digital systems. The improvement of officer skills in the implementation of e-Government in Bangunrejo District has had a significant positive impact on public services. As a result of various training and development programs, the number of trained officers has now increased to 80%. This represents a 60% increase in skills, which is crucial in the face of the challenges and demands of digital services.





The implementation of e-Government in Bangunrejo District, Central Lampung Regency has had a significant positive impact on various aspects of public services. One of the key outcomes is the time efficiency in the administrative process. Before the implementation of this system, it takes the community 3 to 5 days to complete administrative documents. However, once e-Government was implemented, the time was successfully cut to just 1 to 2 days, reflecting a 40% increase in efficiency. This provides convenience for people who previously had to face long queues and time-consuming manual processes. In addition, the number of service applications increased drastically. Before e-Government, the number of applications only reached 150 services per month. Once the system was implemented, the figure jumped to 300 services per month, registering an increase of 100%. This shows that the digital system has made it easier for people to access various public services (Tasyah, 2021).

This progress is also supported by the improvement of human resource (HR) skills in Bangunrejo District. Before e-Government was implemented, only 50% of officers had the ability to use digital systems. However, after the training, the number of trained officers increased by up to 80%, reflecting a 60% increase in skills. This training not only improves technical competence but also helps to overcome technical problems that arise during system management. In addition, the implementation of e-Government also helps reduce the manual administrative burden on sub-district employees. Previously, manual administrative burdens took up 40% of employees' working time. However, with the digitization of processes, this burden is reduced to just 10%, providing a reduction of 75%. This allows employees to focus more on other strategic tasks.

The implementation of this system also increases public satisfaction with public services. Before e-Government, the satisfaction rate only reached 65%. However, after implementation, the figure increased to 85%, reflecting greater trust in government services. On the other hand, the training provided to sub-district employees also supports the success of this system. With good training, the number of officers who are able to use digital systems increases from 50% to 80%. Bangunrejo District shows significant changes in various aspects of public services. One of the main impacts is the efficiency of the administrative process. With the document completion time that previously took 3 to 5 days and now only takes 1 to 2 days, the public can save time substantially. The system also reduces the manual workload of officers, who previously had to handle 40% of administrative tasks manually, now down to 10%. This reduction allows employees to focus more on other strategic tasks.

Public data security is also the main focus in the implementation of e-Government. Previously, conventional data storage systems had a high risk of data leakage or misuse (Sulianta, 2024). After deployment, data security is improved through more reliable digital systems, although there is still room for improvement. This move provides a sense of security to the public, who were previously hesitant to hand over their personal information. The level of public satisfaction with public services has increased significantly, from 65% before implementation to 85% after. This figure shows that people are more satisfied with faster,



transparent, and more accessible services. Not only the community, but also sub-district employees also benefit from this system. With intensive training, the officers' skills in operating the system increased from 50% to 80%. This supports the overall operational success of the system. e-Government cannot be ignored. The successes that have been achieved show that people are increasingly accustomed to using technology to interact with the government, increasing trust in public services. With sustained support, e-Government can become a more inclusive and sustainable service model, offering more equitable and adaptive access to the needs of all levels of society.

## CONCLUSION

The implementation of e-Government in Bangunrejo District has had a significant impact in improving the quality of public services. This system is able to transform the previously slow and time-consuming administrative process into a more efficient one, with document completion time reduced from 3-5 days to only 1-2 days. This efficiency not only benefits the community in saving time, but also reduces the administrative workload for sub-district employees. Significant improvements are also seen in the level of security of public data. With a more reliable digital system, the risk of data leakage or misuse can be minimized. This provides a sense of security to the public in conveying their personal information. The level of public satisfaction with services has also increased, from 65% before implementation to 85% after the implementation of e-Government. This increase reflects that people are more satisfied with services that are more transparent, fast, and accessible.

## REFERENCES

- Cecep Juliansyah Abbas, P. N. (2016). Rancang Bangun Sistem Informasi Kecamatan Berbasis E-Government. *Teknologi Dan Manajemen Informatika*, 1(1). <http://journal.uniku.ac.id/index.php/jejaring>
- Dedi, Iqbal, M., & Fahroji, W. (2019). Sistem Informasi Administrasi Kependudukan Berbasis Web di Kelurahan Sangiang Jaya. *Seminar Nasional APTIKOM (SEMNASITIK) 2019*, 306–313.
- Fatmawati, Irviani, R., Rachman, E. S., Putu, I., Anggie, A., & Kristina, M. (2016). Tata Kelola Teknologi Informasi Sebagai Implementasi E-Government Pada Kabupaten Pemekaran Untuk Meningkatkan Potensi Daerah (Studi : Kabupaten Pringsewu Lampung). *Prosiding Senapati*, 1(1).
- Holle, E. S. (2011). Pelayanan Publik Melalui Electronic Government : Upaya Meminimalisir Praktek Maladministrasi Dalam Meningkatkan Public Service. *Jurnal SaSi*, 17(3), 21–30. [http://s3.amazonaws.com/academia.edu.documents/32562227/jsasi2011\\_17\\_3\\_3\\_holle.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1500435097&Signature=QU1x6acyhvMHs04whwG0eirANWQ%3D&response-content-disposition=inline%3B filename%3DPELAYANAN\\_PUBLIK\\_MELALUI\\_E](http://s3.amazonaws.com/academia.edu.documents/32562227/jsasi2011_17_3_3_holle.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1500435097&Signature=QU1x6acyhvMHs04whwG0eirANWQ%3D&response-content-disposition=inline%3B filename%3DPELAYANAN_PUBLIK_MELALUI_E)
- Indrajit, R. E. (2005). *E Government In Action*. Andi Offset.
- Jaya, F. (2011). *Analisis Kesiapan Pemerintah Kota Palopo Dalam Penyelenggaraan E-Government Di Dinas Kependudukan Dan Catatan Sipil*.
- Kominfo. (2017). Peringkat E-Government ASEAN 2010-2012. In *statistik.kominfo.go.id* (pp. 1–2).
- Lestari, Y. D., Nugraha, J. T., & Fauziah, N. M. (2019). Pengembangan E-Government melalui Layanan Aspirasi Masyarakat di Dinas Komunikasi dan Informatika Kabupaten Magelang. *Jurnal Ilmu Administrasi: Media Pengembangan Ilmu Dan Praktek Administrasi*, 16(2), 163–178. <https://doi.org/10.31113/jia.v16i2.230>
- Pada, S., Desa, P., & Barat, B. (2018). *Pengaruh Implementasi SIMDA Desa , Sistem Pengendalian Internal Pemerintah , Kompetensi SDM Terhadap Kualitas Laporan Keuangan*. 8–9.

- Purnamasari, D. (2017). Undang Undang Republik Indonesia Nomor 6 Tahun 2014 Tentang Desa. In *Undang-Undang Desa*. Sinar Grafika.  
<https://doi.org/10.1017/CBO9781107415324.004>
- Sari, A. M. (2013). Pemberdayaan Sistem Pemerintahan Dan Potensi Desa Pada Kabaputen Pringsewu Berbasis Web. *Proseding KMSI*, 1(1), 1–8.
- Susilo, P. T. (2017). Integritas dan Akuntabilitas dalam Pemerintahan Desa (Studi Kasus: Penjualan Aset Tanah Kas Desa Pada Pemerintahan Desa Sumberasri, Kecamatan Nglegok Kabupaten Blitar - Jawa Timur). *Citizen Charter*, 2(2), 1–14.