

Resistance of Regional Governments in the Implementation of E-Government

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Abstract

According to the UN E-Government Survey, Indonesia achieved a High E-Government Development Index (EDGI) rating with a score of 0.6612 and ranked 88th out of 193 countries. However, monitoring and evaluation results conducted by the Ministry of Administrative and Bureaucratic Reform presented a different outcome. The implementation of e-government at the regional government level shows that 20.63% still received a poor rating, and 50% received a fair rating. Meanwhile, in central institutions, only 7% received a poor rating, while 54% received a good rating and 13% received a very good rating. Based on this data, the implementation of e-government is not consistent or well distributed, and it is suspected that there is resistance to the implementation of e-government in some regional governments. This article uses a literature study approach by reviewing various relevant sources, including journals, books, scientific reports, and other documents. The results of this study indicate that the resistance at the regional government level is caused by several factors, namely mindset, human resource capacity, regulations, infrastructure, and finance.

Keywords: E-Government, regional government, resistance

INTRODUCTION

The electronic-based government system, also known as e-government, is a necessity in the modern age. Data integration, efficiency, and transparency in public services are needs that must be met urgently. Additionally, the collaboration and relations between the government and the public, the government and the business sector, or among different levels of government, increasingly show their complexity, especially since Indonesia is an archipelagic and diverse country. Therefore, utilizing technology to serve the public becomes the best choice. Ideally, if this policy is designed and implemented well, it will create integrity and equitable national welfare. In line with this goal, long-standing problems such as bureaucratic inefficiency in public services can be addressed.

Bureaucratic inefficiency is commonly found in developing countries; therefore, e-government is implemented to bring government services virtually to communities that have not yet achieved equitable welfare. The effective and high-quality implementation of public services remains a major challenge in developing countries. Problems such as corruption, slow bureaucracy, and difficult access to public services need to be addressed promptly. E-government aims to solve these issues by leveraging technology.

The government responded by issuing the Presidential Instruction of the Republic of Indonesia Number 6 of 2001 on the Development of Telematics Utilization in Indonesia, followed by Presidential Instruction Number 3 of 2003 on the National Policy and Strategy for e-Government Development. Currently, the implementation of e-government is also guided by

Presidential Regulation No. 95 of 2018 on the Electronic-Based Government System (SPBE) to provide a national framework for e-government implementation. Since these regulations were applied, the government has been intensifying the development of e-government across regions, and significant progress has been seen at the national level.

The achievements of e-government implementation can be seen through the UN E-Government Survey. In 2020, nationally, Indonesia scored 0.6612 in the High E-Government Development Index (EGDI) group, placing it at 88 out of 193 countries. According to the UN, this score falls into the High EDGI category based on measurements from three indicators: Online Service Index (OSI), Telecommunication Infrastructure Index (TII), and Human Capital Index (HCI). In each performance measurement, Indonesia recorded fairly good scores, including 0.6824 for OSI, 0.5669 for TII, and 0.7342 for HCI (kominfo.go.id). Moving into 2022, the EDGI for Indonesia increased to 0.7160, with scores of 0.7644 for OSI, 0.6397 for TII, and 0.7438 for HCI.



Figure 1. E-Government Development Index (EGDI)

(Source: <https://publicadministration.un.org/egovkb/en-us/Data/Country-Information/id/78/Indonesia>)

The High EDGI status should ideally align with the benefits experienced by communities across all regions. The public should receive effective, transparent, and accountable services. However, at the regional level—whether in provinces, districts/cities, or village government levels—there are still barriers to the implementation of e-government, such as a lack of capacity, inadequate infrastructure, and limited public understanding of technology use. As evidenced by the evaluation of the electronic-based government system at central and regional institutions in 2022 conducted by the Ministry of Administrative and Bureaucratic Reform, there is a disparity between the implementation of e-government at central institutions and regional governments.

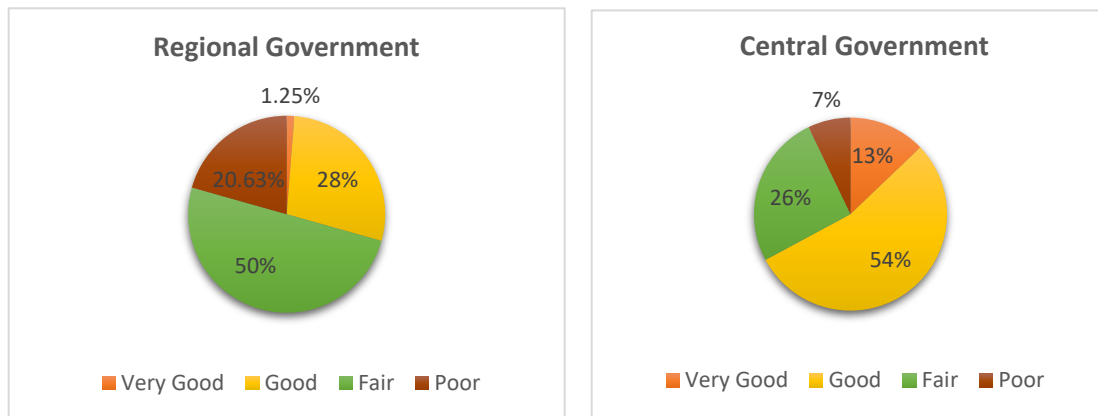


Figure 2. Electronic Government System at Central and Regional Government Agencies in 2022 (Source: Author's Analysis of the Monitoring and Evaluation Results of the Electronic Government System at Central and Regional Government Agencies in 2022 by the Ministry of Administrative and Bureaucratic Reform, 2024)

The data above shows that the implementation of e-government is more effective in central institutions. Out of 70 institutions, 54% received a good rating, 13% received a very good rating, and only 7% received a poor rating. Meanwhile, in regional government, 50% received a fair rating, and the poor rating remains at 20.63%. As for the good rating, 28% is still dominated by institutions on the island of Java. This data indicates that the implementation of e-government is not yet evenly distributed between central and regional institutions, as well as between regional governments in Java and other regions. It is suspected that there is resistance to the implementation of e-government in some regional governments.

METHOD

The writing of this article uses a qualitative method with a literature review, which involves examining various literatures including journals, books, scientific reports, and other relevant documents related to the study topic. The literatures used in this article include documents related to the theories and concepts of e-government, as well as previous research on the implementation of e-government at the regional government level, including provinces, districts/cities, and villages.

RESULTS AND DISCUSSION

E-Government

E-government is a policy that emphasizes the use of technology in response to modernization and the development of Society 5.0. The World Bank (2015) defines e-government as the use of information technology by government parties, such as Wide Area Networks, the Internet, and Mobile Computing, which has the potential to transform relationships with citizens, businesses, and other government agencies [1], aiming to improve the efficiency of government systems [2]. It is further explained that e-government encompasses any activity that leverages information and communication technology to enhance the efficiency, effectiveness, transparency, and accountability of government [3].

Efficiency, effectiveness, transparency, and accountability are elements that support the realization of good governance. Efficiency and effectiveness relate to achieving goals by utilizing available resources with streamlined processes, aided by technology to save costs and simplify procedures. Supporting aspects such as satisfaction levels, moral standards, communication abilities, and so forth can serve as measures of the success of effectiveness and efficiency [4]. Transparency refers to the openness and clarity of information accessible to the public, while accountability pertains to the responsibility of the government, and the implementation of e-

government can be monitored by the public. Thus, it can break the chain of corruption and illegal levies.

A positive impact of implementing e-government is the creation of opportunities for public participation in collaborating with the government or voicing opinions in the policy-making process. Thus, this can foster national integration. The integration between the government and the public in meeting public needs through a one-stop service, or in other words, an integrative approach, connects central and regional governments and eliminates the "fragmented" stigma that has traditionally been associated with bureaucratic services in Indonesia[4].

E-government, as the use of technology by the government to help improve the quality of governmental performance, brings services closer, opens participation opportunities for the public, and aims to enhance relationships between the government and businesses (government to business) and between governments and other countries (government to government). Therefore, e-government, in its implementation, has several types: G2C (Government to Citizens), G2B (Government to Business), and G2G (Government to Government)[5].

According to Darmawan et al., (2020), the implementation of e-Government can be categorized into four types: G2C (Government to Citizen), G2B (Government to Business), G2G (Government to Government), and G2E (Government to Employee). G2C refers to the provision of access to information and public services needed by the community, eliminating the need to visit government offices. It aims to provide efficient services and prevent corruption and illegal levies. Secondly, Government to Business (G2B) refers to e-government models or applications aimed at providing information and services for the business and industry world. Business practitioners requiring services such as business permits, business registrations, and tax reporting are now available online. Information and regulations related to business are also accessible through websites. Through such applications, the government can also establish collaborations with the business sector.

Thirdly, Government to Government (G2G) refers to e-government models or applications intended for the exchange of information between government institutions. The G2G model can be divided into two types: horizontal and vertical. Horizontal G2G aims to connect government institutions at the same level, while vertical G2G connects agencies at different levels, such as central and regional governments. The benefit of G2G is to connect communication and information among government institutions, fostering effective synergy. Lastly, Government to Employee (G2E) aims to enhance internal government performance. The management of human resources supported by advanced technology is expected to increase government officials' loyalty due to more systematic development programs, benefits, and communication among colleagues [6]

Improving the quality of relationships between the government and other domains sometimes cannot be implemented simultaneously. In practice, e-government implementation is carried out in stages, even though government regulations instruct for simultaneous and consistent implementation. Indonesia is a diverse country with various characteristics, potentials, and cultures, so the implementation of e-government is influenced by many factors, such as human resource capacity and regional potential. Additionally, it relates to the consequences of decentralization, where regional governments have the authority to create regulations and manage their own affairs, thus the implementation of e-government in regions is driven by local or regional regulations.

There are five stages or levels of e-government implementation. The first level is having a website for each government institution to provide information about the agency's organizational structure. At this stage, the information provided is still one-way and cannot be categorized as good governance. The second level involves online interaction and transactions with the public, meaning that there is two-way communication. The third level includes online collaboration between the government and the public. The fourth level features not only interaction and cooperation but also data integration that can be continuously accessed from anywhere with a single data input. The final level is digital-based services provided by the government that meet

the needs of the public[1].

As time progresses, experts have formulated various models or stages of e-government, including the models by Layne & Lee (2001), the United Nations (2008), and Fietkiewicz, Mainka, & Stock (2017) [7]

Layne & Lee (2001) Model

The model formulated by Layne & Lee (2001) consists of four stages:

1) Catalogue: At this stage, the government is present online by providing information through a website; 2) Transaction: This stage allows for transactions between the government and the public; 3) Vertical Integration: At this stage, there is synchronization of transactions carried out; 4) Horizontal Integration: At the final stage, there is integration of coordination mechanisms between agencies.

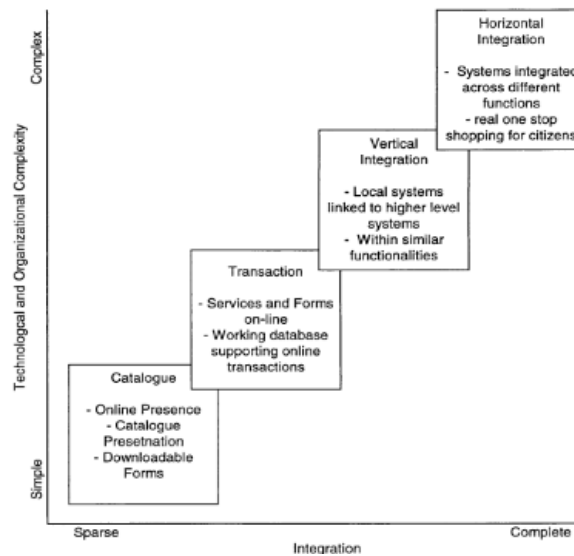


Figure 4. Layne & Lee (2001) Model

United Nations Model (2008)

This model is the most widely used, consisting of five stages: 1) Emerging: At this stage, there is no interaction between the government and the public; only a website providing information is available; 2) Enhanced: This stage provides links containing information and important documents such as regulations and public service information; 3) Interactive: The government has established channels for interacting with the public, although the interaction remains one-way; 4) Transactional: At this stage, two-way transactions are possible; 5) Connected: The final stage is connected, where all government services are integrated into a single agency or body. This stage is the most complex due to the interconnection between parallel government institutions, such as ministries at the central level (horizontal connections), between government institutions at different levels such as the Ministry of Agriculture and local agricultural offices (vertical integration), infrastructure or interoperability, the same data that can be used/operated by various public institution, the connection between government and the public, and finally, the connection between stakeholders (government, private sector, academia, and NGOs).

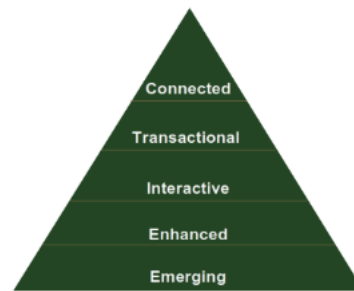


Figure 5. United Nations Model (2008)

Fietkiewicz, Mainka, & Stock Model (2017)

The Fietkiewicz et al. model is developed based on existing models that have been widely used, first through a review and consideration until five pillars were formulated. The term "pillars" rather than "stages" is used because it is believed that the stages in e-government evolution do not always need to be linear and sequential. Each "stage" for them is a distinct phase, separate from one another without a hierarchical level from "lowest" to "highest." The first pillar is information dissemination (catalogue). The emphasis of this first pillar is on the content published, as well as the usability and accessibility of that content. Evaluation or assessment of the first pillar should consider whether the published content is accessible and useful to the general public. The second pillar, communication, focuses on two-way communication between the government and the public, which is currently facilitated through social media and Web 2.0. This pillar looks at and evaluates the use of social media and other communication channels employed by the government. The third pillar, transaction, emphasizes financial and non-financial transactions through e-government systems. Additionally, the ease of operation and the utility of the system also significantly influence the transactional pillar in e-government. The fourth pillar is interoperability/integration. The complexity of data and information can sometimes be the biggest obstacle for e-government systems, so it is hoped that existing systems can integrate services that may exist at different levels. The last pillar is participation, which represents the development of e-government systems in political areas such as online voting, public discussions, and the absorption of public participation in government administration facilitated through e-government systems.

If e-government is implemented well, it will have significant impacts, including the following:

1. Updating the quality of government services to its stakeholders (the public, business, and industry), especially in terms of performance effectiveness and efficiency in various aspects of state life.
2. Increasing transparency, control, and accountability in government administration as part of the implementation of the Good Governance concept.
3. Significantly reducing total administrative costs, relationships, and interactions incurred by the government and its stakeholders for daily activities.
4. Providing opportunities for the government to obtain new sources of revenue through interactions with interested parties.
5. Creating a community environment that can promptly and accurately address various issues in line with global changes and trends.
6. Empowering the public and other parties as government partners in the process of making various public policies in a fair and democratic manner [1].

Resistance of Local Governments in Implementing E-Government

The consequences of decentralization lead to varying effectiveness in the implementation

of e-government at the regional level. Decentralization grants local governments the authority to create regulations, execute strategic programs, and determine regional development directions. Additionally, regional competitiveness is influenced by factors such as potential, culture, education level, and customs, so it is not surprising that the achievement of national programs has not reached uniform results. It takes relatively longer for some regions to catch up with others, especially for underdeveloped, leading, and outermost areas.

In the implementation of e-government at the village, district/city, and provincial levels, previous research has revealed data, facts, and information indicating numerous obstacles that still need to be addressed, ranging from technical issues and human resources to regulatory problems. For example, the implementation of e-government in Wanagiri village faces difficulties in digital document archiving due to the lack of online information, such as a website for displaying information and providing services to the public, due to the limited technological skills of village officials. Computers are only used for typing documents and not for other technological applications that support government activities [8].

In Cikampek Utara village, the creation of documents such as Letters of Introduction for Identity Cards, Family Cards, Letters of Non-Ability, and others still uses manual methods. The community still visits the service unit and fills out the required forms. This situation arises because the village government rejects the implementation of e-government, considering it is time-consuming and costly, such as providing technical training to staff and purchasing supporting infrastructure, which could disrupt other government activities [9].

In villages that have implemented e-government, such as Sekarwangi Village in Bandung Regency, services can already be conducted through a website supported by a policy issued by the Bandung Regency Government, namely Bandung Regent Regulation Number 16 of 2016 on General Policy for the Implementation of E-Government in the Bandung Regency Government Environment. This allows the village government to collaborate with the Bandung Communication and Information Office and one of the internet providers. However, even though regulations and websites are available, not all residents use the website due to a lack of awareness resulting from insufficient socialization. Additionally, the village officials who understand technology are still very limited, and financial resources are insufficient to further develop e-government tools [2].

Referring to the implementation of e-government in the three villages above, the most fundamental problem found is the village government's resistance to adopting e-government due to perceived time and cost burdens. This issue is related to mindset and should be addressed before e-government policies are implemented. The central government, as the policy maker, must carefully identify the problems before determining alternative solutions. The urgency of implementing technology in government needs to be established and ingrained in government officials at every level. The government must also understand the characteristics, potential, and weaknesses of each region, especially in villages, so that policy formulation is not top-down but bottom-up. Additionally, with the limited capacity of human resources in technology development, besides regular training and development, it is also necessary to deploy young people in villages who are aware of technology and competent, so that, villages can gradually compete and contribute nationally.

At the regency and city government levels, progress has been made but many obstacles still remain. In Ciamis Regency, licensing processes from application to document issuance can be done through the online single submission (OSS) system application, but it is hindered by inadequate supporting facilities for the OSS application program. This is evident from slow and intermittent internet connections, and insufficient computer equipment. Furthermore, the department has not yet developed overall human resource potential or conducted socialization about service applications, particularly OSS, causing the public to still prefer manual methods due to lack of information and limited technological skills [10].

In Padang City, the main issue is related to regulations, as the local government does not have a blueprint or master plan for e-government implementation and development. Even if one

exists, it only adopts a technical telematics approach and ignores other aspects such as economics, social, and cultural factors. Additionally, similar to issues in other areas, the implementation of e-government is not accompanied by reliable resources to manage the website[11].

An interesting case is in Binjai City, where the local government has implemented the Smart City program using the E-Masyarakat application through the issuance of Mayor Regulation No. 53 of 2017. With this application, the public can make reports. The concern is that the number of reports received from 2019 to 2021 has decreased each year, due to the lack of responsiveness from the Regional Device Operators (OPD) in following up on the reports. In 2019, out of a total of 412 reports, 90 reports were not processed and 13 reports were still in process. In 2020, there were only 173 reports with 50 reports not processed and 1 report still in process. In 2021, there were only 62 reports with 21 reports not processed and 1 report still in process. The public lost trust and eventually the application was closed. The application was then replaced by a new one by the next mayor named Binjai Satu Aplikasi. Binjai Satu Aplikasi was designed to be much more sophisticated, including many services such as E-Ambulance, E-Kelurahan, and E-Sippadu, not just public reporting. However, this technological advancement was unfortunately difficult for the public to accept due to the inability to use the application, particularly among the elderly[12].

Examining the implementation of e-government at the district/city level, there are already websites or applications in use, in addition there are also some regulations governing them. It is apparent that the local government is paying attention to the implementation of e-government, but the supporting elements are still needed. This includes infrastructure such as computer units and internet networks, IT training and development, and preparation for the public to use technology. Infrastructure problems and HR development are related to the financial capability of the region, so financial issues are crucial to address. Regarding public readiness, it is also related to community segmentation, including education, cultural background, and age. To address the diversity of community characteristics, e-government policies need to be reviewed. This should start with ease of application use, implemented gradually, and providing options or adjustments for the elderly. For example, in addition to e-government implementation, a special service scheme should be created for people who are not yet able to operate technology, so that applications/websites/online tools continue to run and other communities can still be served well.

At the provincial level, Central Java can be categorized as excellent in e-government implementation. This is indicated by the implementation of GRMS (Government Resources Management System). The Government of Central Java Province has been developing the GRMS model since 2014 through Governor's Decree No. 489 of 2014. GRMS itself is a system application designed by the Central Java Provincial Government to eradicate corruption by involving many parties, namely government ranks at various levels and the public. Through this application, the government and the public together plan development, and the public can even propose programs or activities. However, it still faces classic issues, such as the readiness of officials to use digital systems. Other technical obstacles include the lack of integration of information between applications and the system not fully supporting all activities in government management. In Central Sulawesi Province, the problem that arises is that the website cannot function/error and is inaccessible to the public, caused by a lack of IT experts in each work unit, as well as infrastructure issues such as a shortage of computer units in the Communications and Informatics Office and a still minimal budget [13].

The implementation of e-government at the provincial level is more complex because it involves the agencies below it, starting from the district/city level down to the village, hence it is the need for an integrated system. The importance of system integration is highlighted by the emphasis in e-government not only on the effectiveness and efficiency of public services but also on enhancing the relationship between government agencies both vertically and horizontally. In addition, technical problems such as website errors and inadequate infrastructure are still encountered. Such conditions are quite disheartening; provincial governments should be more competent in terms of human resources and procurement.

Given the numerous obstacles faced by local governments in implementing e-government, the Ministry of Communication and Information has actually established several points that need attention, namely:

1. Content Development, related to application development.
2. Competency Building, related to procurement, training, and development of human resources competencies.
3. Connectivity, related to the availability of communication and information technology infrastructure at the location where e-Government is implemented.
4. Cyber Laws, related to legal devices that regulate e-government activities.
5. Citizen Interfaces, related to the procurement of human resources and the development of various access channels (multi-access channels) that can be used anywhere and anytime.
6. Capital, related to e-Government funding, including maintenance and development.[14]

CONCLUSION

Referring to the above exposition, the factors driving resistance in local governments in implementing e-government are as follows:

1. Mindset. Resistance is caused by the rejection of some government officials and the public to implement e-government. Technology is still viewed as a foreign and difficult tool to operate, leading to reluctance to learn it. They prefer to maintain old methods and traditions. Such a mindset is also caused by a lack of literacy and information.
2. Human Resource Capacity. Resistance occurs due to the inadequacy of human resources to operate technology. This is related to training and development programs, as well as the uneven distribution of competent human resources and financial capital for HR development.
3. Regulations. Resistance is caused by the absence of regulations issued by the government as a legal framework for e-government implementation programs. Regulations will guide the program according to its goals, making it measurable, effective, and efficient. Regulations also demonstrate government commitment.
4. Infrastructure. Resistance is due to inadequate facilities. This condition is also related to financial stability and the regulations issued by the local government.
5. Financial. Procurement of goods and services, capacity building of human resources, development of websites, applications, or other tools require adequate financial support. Therefore, regional finances and budget allocation must be considered.

REFERENCES

- [1] Khairudin and Aminah, "Potret Kepercayaan Publik, Good Governance Dan E-Government Di Indonesia," *Publikasi Universitas Bandar Lampung*.
- [2] M. Mariam and I. Kudus, "Analisis Penerapan Electronic Government (E-Gov) Di Desa Sekarwangi Kecamatan Soreang Kabupaten Bandung," *Neo Politea*, vol. 3, no. 2, pp. 39–50, Aug. 2022, doi: 10.53675/neopolitea.v3i2.1081.
- [3] A. Pertiwi, H. Dema, A. Mustanir, and E. Anugrah, "Penerapan E-Government Dalam Mewujudkan Transparansi Tata Kelola Pemerintahan Desa (Studi pada Pemerintahan Desa Bulu Timoreng)," *PRAJA: Jurnal Ilmiah Pemerintahan*, vol. 9, no. 3, pp. 130–139, Nov. 2021, doi: 10.55678/prj.v9i3.508.
- [4] R. M. I. R. Rusdy and S. Flambonita, "Penerapan Sistem Pemerintahan Berbasis Elektronik (Spbe) Di Pemerintah Daerah Untuk Mewujudkan Good Governance," *Lex LATA*, vol. 5, no. 2, Jun. 2023, doi: 10.28946/lexl.v5i2.2351.
- [5] A. Tasyah, P. A. Lestari, A. Syofira, C. A. Rahmayani, R. D. Cahyani, and N. Tresiana, "Inovasi Pelayanan Publik Berbasis Digital (E-Government) di Era Pandemi Covid-19," *Jurnal Ilmu Administrasi: Media Pengembangan Ilmu dan Praktek Administrasi*, vol. 18, no. 2, pp. 212–224, Dec. 2021, doi: 10.31113/jia.v18i2.808.
- [6] B. Bao, H. V. Ayomi, H. Bakri, and P. Ndbau, "Penerapan E-Government dalam Pelayanan Publik

- di Kota Jayapura,” *Journal on Education*, vol. 5, no. 2, pp. 4147–4157, Jan. 2023, doi: 10.31004/joe.v5i2.1113.
- [7] B. Irawan Muhammad Nizar Hidayat, *E-government: konsep, esensi dan studi kasus*.
- [8] B. Pujiyono, A. A. A. Ushud, W. Windarto, and A. D. Logiana, “Penerapan E Government Bagi Aparat Desa Wanagiri Menuju Desa Digital,” *Bantenese: Jurnal Pengabdian Masyarakat*, vol. 5, no. 2, pp. 322–334, Dec. 2023, doi: 10.30656/ps2pm.v5i2.7455.
- [9] G. Farhandhika and D. N. Azijah, “Resistensi Pemerintahan Desa Terhadap Pelayanan Publik Berbasis E-Government,” *Communnity Development Journal*, vol. 5, no. 2, 2024.
- [10] L. N. Suzani, “Efektivitas Penerapan Aplikasi Online Single Submission (Oss) Dalam Pelaksanaan Pelayanan Publik di Dinas Penanaman Modal Dan Pelayanan Terpadu Satu Pintu Kabupaten Ciamis,” Mar. 2022, Accessed: Dec. 30, 2024. [Online]. Available: <http://repository.unigal.ac.id:8080/handle/123456789/1172>
- [11] J. Viona, “Government (Studi Kasus: Kendala Pemerintah Kota Padang Dalam Penerapan e-Government) Transformation of Government Management Based On E-Government (Case Study: Padang City Government Constraints in the Implementation of e-Government),” 2022. [Online]. Available: www.kotapadang.gov
- [12] N. Irma, B. Ginting, and J. Leviza, “Penerapan E-Government dalam Penyelenggaraan Pemerintahan di Kota Binjai,” *Locus Journal of Academic Literature Review*, vol. 2, no. 6, 2023, doi: 10.56128/ljoalr.v2i6.168.
- [13] Wuryan Andayani, Dahlia, Eka Putrianti, Oktavima Wisdaningrum, Panji Putranto, and Yesika Yanuarisa, “Penguatan Good Governance: Pengalaman Penerapan Electronic Government Pemerintah Daerah Di Indonesia,” *Jurnal Aktiva : Riset Akuntansi dan Keuangan*, vol. 6, no. 2, pp. 116–131, Jul. 2024, doi: 10.52005/aktiva.v6i2.240.
- [14] S. KARNAY, “Penerapan Electronic Government Pada Dinas Komunikasi Informatika Statistik Dan Persandian Provinsi Sulawesi Selatan,” Jul. 2020.