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E-Government Maturity Analysis: Realizing Advanced and Adaptive Digital Transformation of the Central Java Provincial Government

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ABSTRACT

This research aims to evaluate the maturity level of e-government in the Central Java Provincial Government using a maturity model adapted to the local context. The e-government maturity model developed consists of four main dimensions: technology, organization, environment, and economy. This maturity model divides the maturity levels into five levels: initial, developing, defined, managed, and optimizing. The method used in this study is a qualitative approach, collecting primary data through interviews with policymakers and validating it using secondary data sourced from official government documents and other reliable sources. The research results show that overall, the level of e-government maturity in Central Java is at level 4 (managed), which means the e-government system of the Central Java Provincial Government is fully integrated across services and well-managed. Despite significant progress, there are still areas requiring immediate improvement, such as ICT infrastructure, human resource development, and community participation. This research recommends that local governments continue to expand the equitable distribution of ICT infrastructure to rural and remote areas, strengthen measurable human resource training programs to improve employee technical skills, and implement educational programs to increase community participation in e-participation platforms to support more advanced and adaptive e-government sustainability in the future.

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INTRODUCTION

E-government is a concept of government governance that utilizes information and communication technology (ICT) to improve public service processes and increase the efficiency of government administration. With e-government, administrative processes previously done manually now transition to automated systems, resulting in faster, more accurate data processing and minimizing human error. However, the successful implementation of e-government heavily relies on the level of technology adoption and

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the organization's readiness to manage digital systems (Pramuditha et al., 2024; Cordero et al., 2025; Huda et al., 2025).

E-government initiatives in modernizing government service processes strongly support the creation of transparency, accountability, and public participation. For example, through digital platforms, the public can access public information openly and with wider accessibility, thus promoting transparency in government policy and budget management. Additionally, e-government also opens up space for the public to engage in public sector oversight and government decision-making by submitting criticisms and suggestions through available platforms (Efthymiou, 2025; Setyarto & Judijanto, 2025; Morillo-Avalos & Alegría-Ferreyros, 2025).

The development of e-government in Indonesia has made significant progress in recent years, especially after the implementation of the Electronic-Based Government System (SPBE), regulated by Presidential Regulation Number 95 of 2018. According to the UN E-Government Survey 2024 report, Indonesia is ranked 64th out of 193 UN member states, a 13-place increase compared to the previous year's ranking of 77th. This significant increase reflects the Indonesian government's concrete efforts in developing and implementing e-government initiatives (Aminah & Saksono, 2021; Muzaqqi & Fitrianto, 2023; Maulana et al., 2024).

Meanwhile, the Central Java Provincial Government demonstrates a strong commitment to becoming a role model for e-government in Indonesia by implementing various digital platform innovations, such as LaporGub, Open Data Jateng, e-makaryo, e-planning, e-budgeting, and others. This e-government initiative is supported by a regulatory and policy framework, one of which is Central Java Provincial Governor Regulation Number 40 of 2022 concerning the Implementation of an Electronic-Based Government System (SPBE). Despite having an ambitious vision, the system's implementation still faces challenges, particularly in terms of system interoperability and human resource (HR) capacity, which could potentially hinder the achievement of an integrated and sustainable digital ecosystem (Huda et al., 2025; Wibowo et al., 2024; Dharmawan et al., 2023).

Based on the decision of the Minister of State Apparatus Empowerment and Bureaucratic Reform of the Republic of Indonesia Number 663 of 2024 regarding the Results of the Evaluation of the Electronic-Based Government System (SPBE) in Central Agencies and Regional Governments in 2024, the Central Java Provincial Government ranked 5th with a score of 4.42 and received a satisfactory predicate. The values in that index are the result of measuring the maturity level of e-government implementation in the policy, governance, management, and public service domains. Although this achievement reflects commendable performance, the evaluation results also serve as an important foundation for continuous improvement and enhancement.

To assess the extent to which e-government has been successfully implemented by the government, regular monitoring and evaluation are necessary. Therefore, a

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comprehensive framework is needed to identify specific areas that require improvement and enhancement to ensure the quality of public services continues to increase. Various e-government maturity model frameworks have been developed to analyze the level of e-government implementation, including the Layne and Lee Model, the E-Government Development Index (EGDI) issued by the United Nations, the E-Government Maturity Model (EGMM), Modeling E-Government Maturity Determinants, and others.

Although various e-government maturity models are available, most of them tend to be general and do not always consider specific local aspects. Each country or region has different characteristics, challenges, and needs, so existing models may not be fully relevant to specific local contexts (Muparadzi & Mukonza, 2025). Additionally, models like the E-Government Development Index (EGDI) often rely on quantitative indicators to assess the maturity of e-government, such as the number of digital services available or internet speed. However, these indicators do not always reflect the quality of the user experience or the real impact of e-government implementation on society and government (Chohan et al., 2020; Huda et al., 2023).

The objectives of this research are as follows: first, to formulate an e-government maturity model adapted to local conditions in Central Java; second, to analyze the extent of e-government maturity achieved in Central Java; and third, to provide strategic recommendations based on the identification of supporting and hindering factors to improve the implementation of e-government in the future. This research has limitations related to the use of qualitative methods, which are more focused on the subjectivity of the actors and users of e-government services, as well as the data validation process, which tends to rely on subjective interpretation. Therefore, the results of this study are less able to provide comprehensive and mathematically measurable statistical data.

METHOD

A qualitative approach, informed by literature analysis, can yield a more nuanced and contextual understanding in the comprehensive evaluation of e-government maturity. Qualitative approaches excel at exploring contextual factors that are very difficult to understand through statistical and mathematical calculations alone. While quantitative approaches tend to focus on numerical data and statistical analysis, qualitative approaches are able to provide a deeper understanding of the social, cultural, and organizational aspects that influence the implementation of e-government. Therefore, a qualitative method was used in this study to produce more contextual findings (Chohan et al., 2020; Tangi et al., 2023; Bwalya, 2018; Wulansari & Inayati, 2019).

This research will qualitatively assess the maturity of e-government. Primary data in this study were collected through in-depth interviews with stakeholders, which, in the context of this research, were conducted with structural officials from the Central Java Provincial Government's Department of Communication and Information (DISKOMINFO). In-depth interviews aim to gather information about the e-government

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implementation process that has been carried out and to uncover the dynamics that occur in the management of digital systems.

To ensure data validity, the interview results will then be tested against secondary data such as official reports and government documents, government regulations and policies, and available survey results. The use of this secondary data will confirm and compare the findings from the in-depth interviews with government employees. The combination of primary and secondary data in this study can provide a more comprehensive and contextual picture of the extent of e-government maturity levels in the Central Java Provincial Government.

After the primary data is collected and validated against secondary data, the data is analyzed and interpreted by comparing it with the established e-government maturity indicators. This process aims to assess the extent of e-government achievement in the Central Java Provincial Government. Based on the analysis results, areas requiring improvement and enhancement can be identified, and strategic recommendations can be provided to optimize the future implementation of e-government. The research process is summarized in Figure 1.

Figure 1. Research Flowchart

RESULTS AND DISCUSSION

The empirical and conceptual basis for the analysis is summarized first: the 2025 SPBE evaluation results are presented in the Table 1 below, while Table 2 identifies the e-government maturity models used as references for developing the analytical model.

Table 1. 2025 SPBE Evaluation Implementation Report

No	Nama Instansi	Indeks	Predikat
1	Pemerintah Provinsi Jawa Tengah	4,42	Memuaskan
2	Pemerintah Kab. Semarang	3,31	Baik
3	Pemerintah Kab. Kendal	3,66	Sangat Baik
4	Pemerintah Kab. Demak	3,93	Sangat Baik
5	Pemerintah Kab. Grobogan	3,57	Sangat Baik
6	Pemerintah Kab. Pekalongan	3,05	Baik
7	Pemerintah Kab. Batang	3,55	Sangat Baik

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8	Pemerintah Kab. Tegal	3,16	Baik
9	Pemerintah Kab. Brebes	2,84	Baik
10	Pemerintah Kab. Pati	3,75	Sangat Baik

Source: Ministry of Administrative and Bureaucratic Reform - Republic of Indonesia

Table 2. Identifying E-Government Maturity Models

No	Name Model	Stages/Levels	Dimensions/ Indicators	Reference
1	Digital Government Maturity – Gartner's	Initial (E-Government), Developing (Open), Defined (Data-Centric), Managed (Fully Digital), Optimizing (Smart).	Strategy, organization, operations, customer experience, and technology.	(Taheri & Ziaei, 2021), (Matdoan et al., 2018), (Fath-allah et al., 2014).
2	Layne and Lee Model – E-Government Maturity	Cataloguing/Online Presence, Transaction, Vertical Integration, Horizontal Integration.	Technological and Organizational Complexity, Integration (Sparse Integration and Seamless Integration)	(Layne & Lee, 2001).
3	E-Government Development Index (EGDI) – United Nations	Emerging, Enhanced, Transactional, and Connected.	Online Service Index (OSI), Telecommunication Infrastructure Index (TII), Human Capital Index (HCI).	(Matdoan et al., 2018), (Fath-allah et al., 2014).
4	Modelling E-Government Maturity Determinants	Web Presence, Adv Infosharing, Interaction, Transaction, Connected.	Technology, Organization, Environment (TOE).	(Keban et al., 2024).
5	Maturity Level of Saint Petersburg's Digital Government	Initial, Managed, Defined, Managed, Optimizing.	Infrastructure, Human factor, Digital government systems' functional qualitie, Socio-economic factors pertaining to the public sector's digitalization.	(Rytova et al., 2020).

Source: Scopus database

1. E-Government Maturity Model for the Central Java Provincial Government

This research develops an e-government maturity model tailored to the local context, specifically the Central Java Provincial Government, a province that still faces issues of unequal distribution of information and communication technology (ICT)

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infrastructure, with the majority of its areas being rural (Sofianto et al., 2023; Huda, 2020). Referring to various e-government maturity models that have been successfully developed in previous research, this study adopts four main dimensions: Technology, Organization, Environment, and Economy (TOEE).

First, the technology dimension will evaluate the extent of equitable information and communication technology (ICT) infrastructure readiness, the level of innovative technology system adoption, and data ease of use and security (Zaoui & Souissi, 2022). Second, the organizational dimension will look at ICT governance, leadership support, and the ability of the human resources (Polyanska et al., 2022). Third, the environmental dimension will focus on external factors influencing e-government implementation, such as government regulations and policies and the level of citizen involvement in e-government projects (Hein-pensel et al., 2023). Fourth, the economic dimension will assess the allocation of budget and economic resources invested in ICT, as well as evaluate the economic impact of e-government implementation (Pinto et al., 2023). These four dimensions are expected to offer an in-depth assessment of the factors influencing the maturity of e-government in Central Java Province. The four dimensions and their indicators are summarized in Table 3.

Table 3. Developed E-Government Maturity Model

No	Dimension	Indicator	Reference
1	Technology	Infrastructure ICT, Innovative Technologies, Usability and Security.	(Zaoui & Souissi, 2022), (Hein-pensel et al., 2023), (Polyanska et al., 2022), (Kıyıklık et al., 2022), (Laaber et al., 2023), (Pirola et al., 2020), (Pinto et al., 2023), (Salume et al., 2021), (Redjep et al., 2021), (Borštnar & Pucihar, 2021), (Elif et al., 2023), (Aagaard et al., 2021).
2	Organization	IT Governance, Leadership, Human Resources.	(Zaoui & Souissi, 2022), (Hein-pensel et al., 2023), (Polyanska et al., 2022), (Kıyıklık et al., 2022), (Pinto et al., 2023), (Salume et al., 2021), (Redjep et al., 2021), (Borštnar & Pucihar, 2021), (Voss et al., 2022), (Hortovanyi et al., 2023), (Elif et al., 2023), (Aagaard et al., 2021).
3	Environment	Regulations and Policies, Citizen Engagement.	(Zaoui & Souissi, 2022), (Hein-pensel et al., 2023), (Laaber et al., 2023), (Voss et al., 2022), (Hortovanyi et al., 2023), (Perera et al., 2023), (Wernicke et al., 2021).

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4	Economic	Investment in ICT, Economic Impact.	(Polyanska et al., 2022), (Pinto et al., 2023), (Salume et al., 2021), (Voss et al., 2022), (Hortovanyi et al., 2023), (Perera et al., 2023), (Gökalp & Martinez, 2021), (Pirola et al., 2020), (Borštnar & Pucihar, 2021), (Elif et al., 2023).

Source: Scopus database

The relationship among these dimensions is visualized in Figure 2.

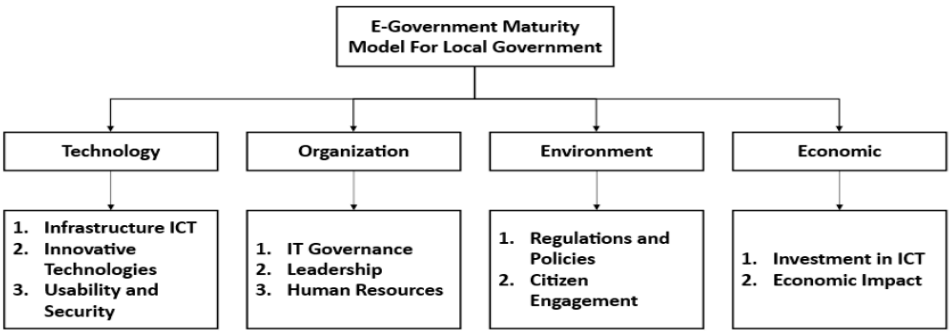

Figure 2. E-Government Maturity Model for Local Government
Source: Scopus database

To describe the extent of e-government maturity achievement in Central Java, this study divides maturity into five levels. Level 1 (initial) describes the implementation of e-government, which is still in its early stages, with limited support and most services still performed manually. Level 2 (developing) indicates that the government is beginning to develop e-government systems, but most data and information management processes are still done manually. Level 3 (defined) describes e-government systems that are starting to integrate across departments, supported by more organized policies and procedures. Level 4 (managed) shows that e-government systems are fully integrated, with good data and information management and the ability to meet public needs. Level 5 (optimizing) describes e-government that functions optimally, with efficient and fully integrated systems, and the use of advanced technologies such as artificial intelligence (AI) and big data to support analysis and decision-making (Rytova et al., 2020; Taheri & Ziaei, 2021; Keban et al., 2024). The five maturity levels are illustrated in Figure 3.

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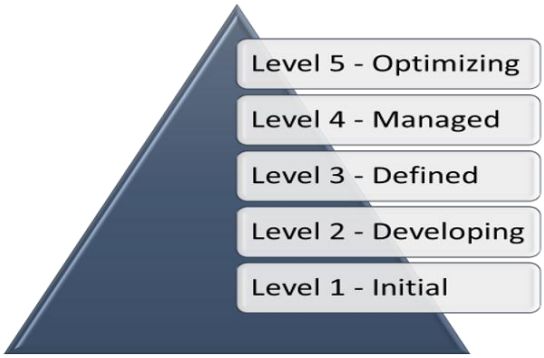

Figure 3. E-Government Maturity Levels for Local Governments
Source: Scopus database

2. E-Government Maturity Level of the Central Java Provincial Government

Based on data that has been collected and analyzed in depth, overall the Central Java Provincial Government has reached an e-government maturity level of 4, or "Managed," indicating that the e-government system implemented is fully integrated and well-managed. At this level, the Central Java e-government system operates efficiently and effectively, connecting the available digital services across regional device organizations (OPDs). The data and information management process has been structured and supported by clear policies and procedures to ensure the quality of public services and the sustainability of e-government in the future.

Although the e-government system overall shows satisfactory results, there are some indicators, such as ICT infrastructure and the availability of skilled human resources, that require special attention and immediate improvement to increase the maturity level of e-government. Here are the research findings related to the dimensions of e-government maturity in Central Java.

a. Technology Dimension

The technology dimension includes indicators of ICT infrastructure and innovative technologies, as well as usability and security. Adequate technology, such as fast internet availability and advanced technological innovation, is crucial for the sustainability and quality of digital public services. The more advanced the technology used and the more interconnected the systems, the higher the level of e-government maturity achieved. The Central Java Provincial Government has implemented various efforts to improve the quality of e-government to enhance the effectiveness and efficiency of public services. While various indicators show positive development, there remain challenges that could impede the advancement of e-government.

First, regarding ICT infrastructure indicators, the findings show that citizens' access to available internet network services and digital technology devices is not evenly distributed, especially in remote and rural areas. To address this, the Central Java Provincial Government launched the Village Internet Program in 2022, and by 2025, 866 blank-spot villages have been provided with internet access. Governor Ahmad Luthfi

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aims to connect all blank spot areas in Central Java to the internet by 2029. From a technological reliability perspective, the development of e-government has seen upgrades to its systems and technology, but it still occasionally experiences disruptions, both from technical issues and routine maintenance. Furthermore, the availability of digital-based services is largely available online and integrated through a central server, namely jatengprov.go.id. Time and place no longer constrain the public's easy and efficient access to these various services.

Second, the government implements cutting-edge technology in stages, based on its capabilities. The adoption of existing technologies, such as the Jateng Ngopeni Nglakoni (JNN) platform, integrates cloud computing and mobile applications. To support data and system integration, the government is implementing the Regional Government Information System (SIPD) platform, which integrates various regional government systems, and the Government Resources Management System (GRMS), an integrated system designed to simplify the management of government budgets and programs. Furthermore, the government actively holds public consultation forums and public satisfaction surveys (SKM) and conducts system trials involving citizens as user-testers before the system is fully implemented, ensuring that digital services meet the needs and expectations of the community.

Third, regarding usability and security indicators, the results of the Community Satisfaction Index (IKM) survey conducted by the government show that the level of community satisfaction and ease of use of digital service systems are within the score range of 76.61 to 88.30, which falls into the favorable category. Furthermore, to ensure data security and the protection of personal data, collaboration was established with the National Cyber and Crypto Agency (BSSN) to implement an Information Security Management System (ISMS) that complies with ISO 27001 standards. SMKI in Central Java is regulated by Central Java Governor Regulation (PERGUB) Number 25 of 2023 concerning Regional Government SMKI.

b. Organization Dimension

ICT governance, leadership, and human resources are associated with organizational dimensions. The level of e-government maturity increases when the IT organizational governance implemented by the government has clear structures, roles, and responsibilities. Revolutionary leadership support in various e-government initiatives can also accelerate the adoption and use of technology in public services. Additionally, the availability of human resources with qualifications and competencies in the field of information technology can create a better organizational work culture in the digital governance of the government.

The IT governance of the Central Java Provincial Government has a formal structure directly led by the governor as the steering committee or Government Chief Information Officer (GCIO), a strategic position within a government responsible for setting the strategic direction and information technology policies. The Central Java

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Provincial Department of Communication and Information (DISKOMINFO), in addition to the governor, is the primary department in charge of managing ICT governance. To provide fast and integrated services, a cooperation agreement (PKS) was established between DISKOMINFO and the Regional Government Organizations (OPD) as the legal basis for collaboration. Then, a single super application was developed that integrates services from various regional government agencies in Central Java. Each government digital service has a designated person in charge, with a detailed job description, to ensure smooth operations and accountability for each service.

In terms of leadership, the governors of Central Java, both the previous ones, Ganjar Pranowo and Nana Sudjana, and the current one, Ahmad Luthfi, actively support the digital transformation of government through official speeches and statements. However, in Governor Ahmad Luthfi's vision, mission, and 11 priority programs, there is no detailed explanation of support for government digital services. In addition, structural officials showed initiative in upgrading technology and systems to keep pace with the times, for example, the adoption of GRMS, the JNN application, the LaporGub! platform, and others. However, based on the available information, structural officials in charge of digital governance do not have educational backgrounds or professional experience closely related to information technology; some of them only have years of experience as officials in the DISKOMINFO.

The human resources available to support the e-government program are relatively sufficient in quantity, but the problem lies in the very limited number of skilled human resources in the field of information technology. Internal surveys also show a shortage of human resources with technical skills in the field of information technology. A number of employees have educational backgrounds and professional experience unrelated to ICT. Although the government has implemented digital training programs for employees, developing human resource competencies requires a more specific and measurable training approach.

c. Environment Dimension

The environmental dimension relates to external factors that influence the implementation of e-government, such as regulations and policies that support e-government initiatives, as well as the extent to which the public and private sectors are involved through government-provided e-participation platforms. E-government maturity is measured by the extent to which the government is able to optimize these external factors so that e-government initiatives are well-received and implemented by the public and private sectors.

To ensure the sustainability of e-government across all government sectors, it is crucial to have clear and integrated government policies available. Various regulations and policies have been established by the Central Java Provincial Government, including Central Java Governor Regulation Number 49 of 2023, concerning the Management and Utilization of Information and Communication Technology. This regulation governs the

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principles, objectives, scope, and governance of the Electronic-Based Government System (SPBE) within the Central Java Provincial Government. Data integration is carried out by sharing data as outlined in a Non-Disclosure Agreement (NDA) between Regional Apparatus, District/City Governments, and other stakeholders.

The Central Java Provincial Government has also regulated data protection and cybersecurity through Governor's Regulation (PERGUB) Number 25 of 2023 concerning the Regional Government Information Security Management System, which refers to national laws such as the Personal Data Protection Law (PDP Law) and BSSN regulations. This governor's regulation mandates the implementation of electronic-based government system (SPBE) security to maintain the confidentiality, integrity, and availability of regional government information from various threats.

Active citizen participation through the e-participation platform is relatively high and increases every year. Citizens can provide input, feedback, or follow the government's decision-making process through the LaporGub! platform, which can be accessed via website, mobile app, WhatsApp, and various social media. The government received a total of 116,894 complaints between May 2014 and October 2025. The community's level of digital literacy also influences active citizen participation. Based on data from the 2025 Indonesian Digital Society Index (IMDI), digital literacy among the people of Central Java is at a moderate level, with the province's IMDI score being 51.19. This value is higher than the national average IMDI score of 44.53. However, there is still a gap between urban and rural communities.

d. Economic Dimension

The economic dimension includes ICT investment indicators and economic impact. The availability of sufficient budget allocation for information technology infrastructure and system development is crucial in determining the extent of e-government maturity achieved. Technology is constantly evolving, which is why sustainable funding is needed to upgrade e-government infrastructure and systems. Additionally, the time effectiveness and cost efficiency gained from implementing e-government also contribute to the sustainability of public service quality.

For the development of ICT infrastructure, the Central Java Provincial Government has allocated capital expenditure through the Communication and Information Office (DISKOMINFO) amounting to Rp 650,000,000 in 2024, which is 1.58% of the total budget of Rp 41,223,881,000. The government uses this budget to manage its data centers. Meanwhile, in 2025, the capital expenditure budget increases to Rp 21,164,305,000, which includes 33.18% of the total budget of Rp 63,778,024,000, with most of the funds allocated for the operation of the Regional Government control center. For the program that manages information applications, which includes domain and e-government management. In 2024, the Central Java Provincial Government allocated a budget of Rp 13,442,779,000, and in 2025, Rp 35,107,445,000. The increase

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in the budget for the program that manages information technology applications between 2024 and 2025 was 161.16%.

With a relatively adequate budget allocation, the implementation of e-government in Central Java has successfully improved operational efficiency and public services. Through the consolidation of goods/services procurement, the government successfully saved up to 20–30% of the budget, which could then be allocated to other development and public services. Additionally, it can prevent budget leaks of up to Rp 1.2 trillion through e-budgeting and e-planning. Additionally, in 2024, the government has issued over 52,144 permits across 17 sectors. The large number of permits issued reflects the government's commitment to driving economic growth and development in Central Java.

3. Strategic Recommendations for the Future Maturity of E-Government

The Central Java Provincial Government can consider several strategic steps to enhance the maturity of e-government. The first step is to improve the ICT infrastructure. Internet network coverage needs to be expanded to remote and rural areas, while the quality and speed of internet connectivity in areas already covered need to be improved. Equalizing access to the internet network will impact the creation of digital inclusion. Additionally, strengthening ICT infrastructure is also necessary to improve cybersecurity systems and protect citizens' personal data.

Secondly, it is crucial to develop skilled human resources (HR) in the field of information technology. Based on the data findings, several employees do not have relevance between their qualifications and competencies and the field of e-government system governance. Therefore, to improve the maturity of e-government in the future, structural officials need to ensure that every involved employee possesses relevant expertise. With the current available human resources, routine training programs and certifications need to be intensified to improve employee skills in managing the e-government system and facilitate employee adaptation to the ever-evolving technological changes.

Third, it is crucial to encourage citizen participation and involvement in the government's decision-making process. The maturity of e-government is not only influenced by internal factors but also by external factors, such as the extent to which the public participates and engages through the e-participation platforms provided by the government. Therefore, the government needs to create an educational program for the public regarding the benefits of e-participation platforms and how to use them as a channel for citizens to provide input, criticism, and aspirations related to public services. Next, the data and information obtained through the e-participation platform must be analyzed to serve as a basis for government decision-making.

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CONCLUSION

The main goal of the e-government initiative is to improve efficiency, transparency, and accountability in public services. To evaluate the extent of e-government implementation and achievements, it is important for the government to periodically assess the maturity of the e-government system. By assessing its maturity, the government can identify specific areas that need improvement and enhancement. In this study, the researcher developed an e-government maturity model tailored to the context of developing countries, specifically in areas where the majority of the territory is rural, such as Central Java Province. This model measures e-government maturity based on four main dimensions: technology, organization, environment, and economy, with five maturity levels: initial, developing, defined, managed, and optimizing.

The developed e-government maturity model was used to assess the e-government maturity level in the Central Java Provincial Government. The research results show that overall, the level of e-government maturity is at level 4 (managed), which means it has reached the well-managed stage, although there is still room for improvement. The main findings indicate that the e-government system implemented in Central Java is well-integrated, collaboration between government agencies to integrate services is also functioning well, and the digital platform is able to meet most of the community's needs. The result indicates that the implementation of e-government in Central Java has been successful.

However, there are several challenges that need to be addressed immediately to improve the maturity of e-government in the future. These challenges include equalizing ICT infrastructure, ensuring the availability of skilled human resources, and increasing public engagement in e-participation platforms. Therefore, the Central Java Provincial Government needs to allocate adequate funds to improve these three aspects, as they all play a very vital role in ensuring the sustainability of advanced and adaptive e-government in the future.

The limitations of this study lie in the data collection, which relies on information from policymakers and is validated through documents available on the official government website and other reliable sources. The collected data and information were then analyzed qualitatively, resulting in findings that tend to be subjective and do not mathematically represent the level of maturity. As a suggestion for further research, it is recommended to include a broader survey of e-government service users, as well as combine qualitative and quantitative methods to produce more comprehensive findings.

CONFLICT OF INTEREST

The authors affirm that no personal or financial conflicts of interest influenced the work described in this publication.

AUTHOR CONTRIBUTION

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MNH: Conceptualization, methodology, validation, data analysis, and original draft writing. MS: Writing—review and editing of the manuscript. ANR: Data collection and documentation. TP: Supervision. MJL: Supervision. All authors have read and approved the final version of this manuscript.

ETHICAL STATEMENT

This research adheres to academic research ethics standards. The researchers conducted data collection and evaluation of e-government maturity in the Central Java Provincial Government while adhering to the collection and evaluation of e-government maturity in the Central Java Provincial Government with the principles of transparency and maintaining the confidentiality of sources. There are no clinical experiments involving humans or animals in this study.

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DECLARATION OF GENERATIVE AI

During the preparation of this work, the authors used generative AI solely to improve grammar and translate the draft. After using this tool, the authors reviewed and edited the content as needed and took full responsibility for the publication's content.

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