JIHAD: Jurnal Ilmu Hukum dan Administrasi
Vol. 7 No. 4 Desember 2025
p-ISSN : 2745-9489, e-ISSNl 2746-3842
DOI: *10.36312/jihad.v7i4.9932/https://ejournal.mandalanursa.org/index.php/JIHAD/issue/archive*

E-Planning System in the Regional Development Planning Agency of Gorontalo District

Adelia Mayanggita[1], Apris Ara Tilome[2], Franky Djafar[3]
Universitas Muhammadiyah Gorontalo

Article Info
Article history:
Accepted: 10 December 2025
Publish: 18 December 2025

Keywords:
Planning;
TOE Framework;
Bappeda;
Technology.

Abstract
This study aims to analyze the implementation of the e-Planning system in the Regional Development Planning Agency ancy (Bappeda) of Gorontalo Regency using the Technology-Organization-Environment (TOE) approach. The method used is a qualitative approach with data collection techniques through observation, interviews, and documentation. The results of the study indicate that the implementation of the e-Planning system has not been running optimally and still faces various obstacles in three main aspects. From the technological aspect, unstable internet network interference is a dominant obstacle that causes delays and failures in system access. From the organizational aspect, the available SOPs are still general and have not been adapted to the technical needs of each sector, resulting in inconsistencies in task implementation Meanwhile, from the environmental side, the low understanding and technical skills of human resources. as well as unequal training, are challenges in optimizing system use. This study recommends improving network infrastructure, re-drafting more contextual SOPs and ongoing technical training to increase the effectiveness of e-Planning implementation in the Bappeda of Gorontalo Regency.

Corresponding Author:
Adelia Mayanggita
Universitas Muhammadiyah Gorontalo
Email: adeliamayanggita@gmail.com

1. INTRODUCTION

Regional development planning is a structured effort to guide efficient, effective, and sustainable development. To support this goal, the Indonesian government has initiated various reforms, one of which is the adoption of information technology in its development planning system, known as e-Planning. E-Planning is a technology-based innovation aimed at increasing transparency, accountability, efficiency, and public involvement in the regional development planning process.

In the current era of globalization, developments in the field of information and communication technology require continuous adjustments to make changes and improvements in various sectors. This situation creates a great opportunity for Indonesia as a whole, as well as for government agencies or OPDs specifically, to adopt and utilize information technology and the internet in government structures. Thus, to achieve efficient and effective government administration, it is very important to optimize the use of information and communication technology through the arrangement of management systems and work processes in an electronic-based government environment.

Technology has a significant role as the most important instrument in improving the quality of clean, transparent, efficient, and effective services in order to achieve good governance. This is the hope for every citizen to receive satisfactory services from the

government. Currently, the government must adapt to technological advances so as not to be left behind and can meet the increasingly diverse demands of society.

Current technological developments support BAPPEDA (Regional Development Planning Agency) innovation by creating an integrated information system for regional planning and development that aligns with national development goals. One innovation in this system is the E-Planning application, which simplifies the development planning process at all administrative levels. E-Planning is now a form of e-government implementation, but it focuses more on the use of electronic technology in the planning and development sector. This is a logical step in developing an information system for regional development planning.

The e-Planning system is an information platform that combines various regional development planning processes into an interconnected digital form. The implementation of this system is in line with the provisions contained in Law Number 23 of 2014 concerning Regional Government and Government Regulation Number 8 of 2008, which regulates the Stages, Procedures for Preparation, Control, and Evaluation of the Implementation of Regional Development Plans. The e-Planning system is an information platform that combines various regional development planning processes into an interconnected digital form. The implementation of this system is in line with the provisions contained in Law Number 23 of 2014 concerning Regional Government and Government Regulation Number 8 of 2008, which regulates the Steps, Process for Preparation, Supervision, and Evaluation of the Implementation of Regional Development Plans.

One region that has adopted e-Planning in its planning activities is Gorontalo Regency. As an autonomous region within Gorontalo Province, the regency has implemented an e-Planning system for its development planning efforts. This step is part of the local government's efforts to update its development planning system and improve the quality of development planning in the region.

Laws and regulations related to the Regional Government Information System (SIPD) include Law No. 25 of 2004 which regulates the National Development Planning System, covering development planning, management, and monitoring, and Law No. 1 of 2022 which regulates Financial Relations between the Central and Regional Governments, which contains financial management at the regional level and the allocation of funds between the central and regional governments. Based on Regulation of the Minister of Home Affairs No. 70 of 2019 which regulates the Regional Government Information System (SIPD), this regulation manages data and information related to regional government, while Regulation of the Minister of Home Affairs No. 98 of 2018, which regulates the Regional Development Information System (SIPD), focuses on the management of regional development data and information. However, these regulations have been revoked by Regulation of the Minister of Home Affairs No. 70 of 2019.

The Regional Planning and Development Agency (BAPPEDA) of Gorontalo Regency, as the leading sector in regional development planning, plays a crucial role in implementing the e-Planning system. The success of this system's implementation depends heavily on BAPPEDA's ability to manage and optimize its use. The e-Planning application in the planning process is expected to simplify the work of planners, given that the planning process requires a long time and high precision in its preparation. This aims to produce planning documents that meet the expectations and needs of the community.

Based on initial observations, the implementation of the e-Planning system in Gorontalo Regency has been underway for several years, but numerous issues remain. One of these is the readiness of human resources to operate the system. Not all officials have the understanding and skills to use information technology, particularly in the e-planning

aspect, which will impact the preparation of planning documents for regional development. This automatically presents a serious challenge in the development planning sector. Furthermore, problems arise because officials experience difficulties in preparing planning documents due to limited knowledge of applicable planning standard operating procedures and unstable internet connections. This impacts the implementation of the e-planning program, making it difficult for officials to analyze performance achievements, both across time, between regions, and in terms of alignment with program and activity targets expected in accordance with the organization's vision and mission. This situation has the potential to affect the quality of the data and information produced.

Regulatory and policy aspects also play a crucial role in e-Planning implementation. The sustainability of the e-Planning system also requires special attention. This system needs to be continuously developed and refined in line with technological developments and organizational needs. Human resource capacity maintenance and development systems need to be implemented on an ongoing basis.

This research also relates to the demand for improving the quality of public services and good governance. The implementation of e-Planning is one innovation that can help achieve these goals by increasing the effectiveness and efficiency of the development planning process.

The purpose of this study is to describe and analyze the extent to which the implementation of the e-Planning system supports the regional development planning process in Gorontalo Regency.

2. RESEARCH METHODS

The approach applied in this research is a descriptive method with a qualitative focus. According to Narbuko and Achmadi (2014:44), descriptive research is a type of study that attempts to describe a current situation based on available data, encompassing data presentation, analysis, and interpretation; and can also be comparative and correlative.

The type of research used in this thesis is qualitative research. Sugiono (2015:26) in his book entitled Qualitative Quantitative Research Methods and R&D, states that the purpose of qualitative research is to uncover qualitative information, thus placing more emphasis on the processing of processes and meaning by describing a problem. This research is descriptive, namely to understand or describe the circumstances of the event being studied or the analysis conducted on one variable only, without making comparisons or linking it to other variables. The location of this research is at the Regional Development Planning Agency of Gorontalo Regency.

The research that will be carried out uses 2 (two) types of data sources, namely:

1. Data Primer

   Primary data is the primary source of information derived from the words and behavior of individuals being observed or interviewed. This information is collected directly from the interviewees after they provide explanations, reactions, and answers to various questions posed by the researcher.

   a. Head of Personnel Sub-Section person
   b. Sub-coordinator of planning: 1 person
   c. Head of Research Division: 1 person
   d. Planning Coordinator Staff: 1 person
   e. IT Staff: 1 person
   f. Personnel Staff: 1 person
   g. Commission III of the Regional People's Representative Council

2. Data Seconds

Data obtained from agencies, libraries or books related to the research.

This study employed a descriptive qualitative method, explaining the research object verbally through data obtained from questionnaires distributed to informants. Data collection was conducted directly in the field, with researchers visiting the locations to obtain the necessary information. The methods used to collect data in this study were: observation, interviews, and document review.

The data analysis stages are carried out through several steps, namely data reduction, data presentation, and conclusions/verification.

In checking the validity of the data, researchers used the following techniques:

1. Observation Persistence

   In this technique, a search is carried out for conditions, characteristics and elements in the situation that are relevant to the problem being researched.

2. Triangulation

   In this technique, researchers utilize sources and methods to support their investigations. This technique involves multiplying the same data from various sources for checking purposes or as a primary comparison against the data. (Sugiyono, 2015:277).

3. RESEARCH RESULTS AND DISCUSSION

3.1.Research result

1. Technology Context (*Technological Context*)

In the context of the TOE Framework, technology is a key element influencing the success of information system adoption. Internet network disruptions were the dominant complaint reported.

Technological factors, particularly internet network infrastructure, are a major obstacle to the implementation of the e-Planning system at the Regional Development Planning Agency (Bappeda) in Gorontalo Regency. Frequent network issues, particularly during peak hours and near data entry deadlines, result in work delays, data loss, and decreased operational efficiency. This indicates that technological readiness—as outlined in the TOE framework—has not been fully achieved. Furthermore, organizational support is needed in the form of strategic policies, such as allocating a dedicated budget, increasing network capacity, inter-agency collaboration with the Communication and Information Technology Agency (Kominfo), as well as infrastructure audits and developing standard operating procedures to address disruptions. All of these steps reflect the importance of collaboration between technological and organizational aspects for the e-Planning system to function properly and support effective and transparent development planning.

2. Organizational Context (*Organizational Context*)

The organizational context in the TOE Framework encompasses internal organizational aspects that influence technology adoption and implementation, such as organizational structure, human resources, formal processes (including SOPs), and managerial support. In the context of this research, there are two main issues related to the organizational dimension:**(1) Standard Operating Procedure (SOP) is not yet strong in** the implementation of e-planning, and**(2) a lack of understanding and skills of the apparatus in** the use of the e-planning system.

To understand the comprehensive e-Planning system implementation process, the following is a Standard Operating Procedure (SOP) flowchart implemented by the Gorontalo Regency Bappeda. This flowchart illustrates the stages from preparation to finalization of regional planning documents through the e-Planning system:

Figure 1. BAPPEDA E-Planning System SOP Flow

Standard Operating Procedure (SOP) documents currently used in the implementation of the system and planning are not complete, yet **they fulfill** real operational needs in the work environment**.** The available SOPs are general and tend to be non-contextual, so they are unable to provide adequate technical guidance for employees from various work units. From the interviews conducted, an informant stated that there was no adjustment of the SOP to the work structure in each unit field results in differences in understanding and implementation of workflows between units. This indicates that SOPs have not been designed with a functional approach that takes into account the diversity of roles and responsibilities between fields, resulting in inconsistencies in task execution, particularly in the data input process into the e-Planning system.

3. Environmental Context (*Environmental Context)*

Influencing organizational decisions in adopting and implementing technology. These factors can be government regulations, pressure from regulatory agencies, public demands, general technological developments, and support from external partners. In the context of this research, the implementation of e-planning systems in government agencies cannot be separated from external pressures, especially from national regulations that require the implementation of electronic-based development planning systems as part of bureaucratic reform policies and strengthening e-government systems.

Existing training is still a formality, lacking ongoing support. Many staff struggle because they don't fully understand the system's workflow. I believe training needs to be more practical, routine, and address the system's logic so users are truly prepared to operate e-Planning effectively.

3.2.Discussion

1. Technology Context (*Technological Context)*

Internet network disruption is the most significant technological problem that hinders the smooth use of the e-Planning system. at the Bappeda of Gorontalo Regency.

System access disruptions are common, especially during peak hours or near data entry deadlines. This causes the system to slow down, pages to not open, and even data that has been entered can be lost if the connection is interrupted. In many cases, these issues force staff to work overtime to meet deadlines. Several technological factors have been identified as inhibiting the optimization of the e-Planning system, including:

a) Limitations of Technological Infrastructure
Unstable internet connectivity remains a major obstacle to the operation of the e-Planning system. Several informants reported that the system frequently lags during data input or synchronization, even failing to save data. This hinders the smooth running of the development planning process, which should be digital and real-time.

b) System Integration is Not Optimal
The e-Planning system is not fully integrated with other planning systems, such as the Regional Government Information System (SIPD) or other internal OPD systems. This results in overlapping data and duplicate input, making it difficult for users to ensure information consistency across platforms.

c) System Reliability and Security Level
The system lacks adequate data backup and security mechanisms. Several officers expressed concerns about the risk of data loss due to technical disruptions, as well as the lack of clear SOPs or data security protocols.

2. Organizational Context (*Organizational Context)*

One of the main challenges in implementing an e-planning system is the lack of detailed, clear, and contextually relevant standard operating procedures (SOPs) to guide work. Existing SOPs are considered too general, not tailored to the work structure of each department, and do not provide sufficient technical guidance on how to use the system. As a result, data entry between work units is inconsistent and confusion arises.

In an effort to promote bureaucratic reform and electronic-based governance, local governments have begun implementing various information systems, one of which is e-Planning. However, the success of this system's implementation is determined not only by technological factors but also by the internal readiness of the organization as the primary implementer.

In the TOE (Technology-Organization-Environment) framework developed by Tornatzky and Fleischer (1990), the organizational context includes important elements such as leadership support, human resource competency, work structure, organizational culture, and resource allocation.

At the Regional Development Planning Agency (Bappeda) in Gorontalo Regency, e-Planning implementation still faces various challenges, one of which stems from organizational weaknesses. Issues such as the lack of dissemination of standard operating procedures (SOPs), a lack of technical training, and poor employee understanding of the system's workflow indicate that the organization is not yet fully prepared internally to support this system.

Weiner (2009) explains that an organization's readiness for technological change depends on structural readiness, including the existence of clear work rules, such as standard operating procedures (SOPs). If SOPs are inadequate, the organization is not fully prepared to operate digital systems consistently and sustainably. SOPs are part of the instrument that reflects structural readiness in facing digital transformation.

Employees at the Gorontalo Regency Regional Development Planning Agency (Bappeda) indicated that standard operating procedures (SOPs) related to the e-Planning system were not yet fully established and functioning properly. Several respondents stated that although technical guidelines existed, they lacked detail or were not effectively disseminated. This resulted in employees often relying on previous experience or personal initiative in carrying out their duties, which could lead to inconsistencies between various work units.

The inconsistency of SOPs also confuses assignments, data input methods, and planning verification and validation stages. This situation has the potential to reduce the effectiveness and accuracy of data entered into the e-Planning system. SOPs that are not strong enough also affect the continuity of the system, because new employees or users who are not used to it will have difficulty when trying to understand the system's workflow.

3. Environmental Context (*Environmental Context)*

Still, there are limitations in human resources' understanding and technical skills in operating the e-Planning system. Several informants stated that they had not fully mastered the system's features, and some even experienced difficulties with data input and validation.

Furthermore, the training provided was deemed uneven and unsustainable, resulting in not all employees having equal skills in using the application. This situation led to a dependency on certain personnel perceived as more technologically savvy. This capacity imbalance also impacted work efficiency and planning accuracy, as input and reporting processes were suboptimal.

This problem of lack of skills shows that, from an organizational aspect within the framework Technology-Organization-Environment *(TOE)*, the human resource readiness factor is still the main challenge that must be overcome to support the maximum implementation of information systems.

Parasuraman (2000) explains that technology readiness is the level of individual readiness to accept and use new technology. In this context, a lack of training and understanding among human resources indicates low readiness, which can hinder the successful implementation of digital systems. To maximize the system's utilization, organizations need to build employee mental readiness and technical skills through ongoing education and training.

Thus, it can be concluded that although there is strong encouragement from the external environment to implement the e-Planning system, obstacles in the form of minimal technical support, inconsistencies between central and regional regulations, and cultural resistance are significant challenges in the context of the external environment of the Gorontalo Regency Bappeda.

4. CONCLUSION

The implementation of the e-Planning system has not been optimal and still faces obstacles in three main aspects: technology, organization, and environment. From a technological perspective, unstable internet network disruptions are a major obstacle,

causing frequent system delays, errors, and inaccessibility, especially during peak hours. From an organizational perspective, existing SOPs are still general and have not been adapted to the technical needs of each sector, resulting in inconsistencies in work processes. Meanwhile, from an environmental or human resource perspective, limited understanding and technical skills of the apparatus, including system administrators, as well as uneven training, indicate low individual readiness to operate the system optimally. Therefore, the successful implementation of the e-Planning system depends heavily on improving the technological infrastructure, strengthening the organizational structure through contextual SOPs, and continuously increasing human resource capacity.

5. ACKNOWLEDGEMENT

The author would like to thank the Regional Development Planning Agency of Gorontalo Regency for the support and information provided during this research.

6. BIBLIOGRAPHY

"Jurnal Administrasi Publik Daerah," vol. 15, no. 2, pp. 134–145.

A. Abe, *Perencanaan Daerah Partisipatif*. Solo: Pondok Edukatif, 2019.

A. Ahmadi and Narbuko, *Metodologi Penelitian*. Jakarta: Bumi Aksara, 2014.

A. Dwiyanto, *Mewujudkan Good Governance Melalui Pelayanan Publik*. Yogyakarta: Gadjah Mada University Press, 2016.

A. P. Paputungan, L. Kalangi, and L. A. Mamonto, 2023.

B. Rianto and T. Lestari, *Polri & Aplikasi E-Government dalam Pelayanan Publik*. Surabaya: CV Putra Media Nusantara, 2012.

D. Mustafa, *Birokrasi Pemerintahan*. Bandung: Alfabeta, 2019.

E. M. Forman et al., "Promising technological innovations in cognitive training to treat eating-related behavior," *Appetite*, vol. 124, pp. 68–77, 2018, doi:10.1016/j.appet.2017.04.011.

G. Nor, *Manajemen Publik pada Pemerintah*. Jakarta: Bumi Angkasa, 2014.

G. Setiawan, *Implementasi dalam Birokrasi Pembangunan*. Jakarta: Balai Pustaka, 2005.

H. Pasolong, *Metode Penelitian Administrasi Publik*. Bandung: Alfabeta, 2018.

H. Prabayanti, "Faktor-Faktor yang Mempengaruhi Adopsi Biopestisida Oleh Petani," Skripsi, Universitas Sebelas Maret, 2010.

I. K. Syafii, *Ilmu Administrasi Publik*. Jakarta: Rineka Cipta, 2016.

I. K. Syafiie, *Sistem Pemerintahan Indonesia*. Jakarta: Rineka Cipta, 2011.

J. F. Manengal, R. Gosal, and S. E. Pangemanan, "——," *Jurnal Governance*, vol. 6, no. 1, pp. 75–84, 2022.

L. Agustino, *Dasar-Dasar Kebijakan Publik*. Bandung: Alfabeta, 2014.

L. Ali, *Kamus Lengkap Bahasa Indonesia*. Surabaya: Apollo, 2007.

L. Nofianti, *Public Sector Governance pada Pemerintah Daerah*. Pekanbaru, 2015.

Listyaningsih, *Administrasi Pembangunan*. Yogyakarta: Graha Ilmu, 2014.

Mardiasmo, *Akuntansi Sektor Publik*. Yogyakarta: Andi, 2018.

N. Usman, *Konteks Implementasi Berbasis Kurikulum*. Jakarta: Grasindo, 2012.

P. J. Denning and T. G. Lewis, "Technology adoption," *Communications of the ACM*, vol. 63, no. 6, pp. 27–29, 2020, doi:10.1145/3396265.

Purwanto and Sulistyastuti, *Analisis Kebijakan dari Formulasi ke Implementasi Kebijakan*. Jakarta: Bumi Aksara, 1991.

R. Djalil, *Akuntabilitas Keuangan Daerah Implementasi Pasca Reformasi*. Jakarta: PT Semesta Rakyat Merdeka, 2018.

R. E. Indrajit, *Electronic Government: Konsep Pelayanan Publik Berbasis Internet dan Teknologi Informasi*. Yogyakarta: Andi, 2006.

Reni, *Implementasi Sistem E-Planning pada Bappeda Kabupaten Kepulauan Meranti*, Skripsi, Universitas Islam Riau, 2021.\

S. Arikunto, *Prosedur Penelitian: Suatu Pendekatan Praktis*. Jakarta: Rineka Cipta, 2010.

S. S. Indradi, *Dasar-Dasar dan Teori Administrasi Publik*. Malang: Agritek Yayasan Pembangunan Nasional, 2016.

Sugiyono, *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta, 2015.

Syafalevi, *Pengantar Administrasi Pembangunan*. Jakarta: LP3ES, 2011.

T. Y. Keban, *Enam Dimensi Strategis Administrasi Publik: Konsep, Teori dan Isu*. Yogyakarta: Gava Media, 2008.

V. Ningsih, R. N. Sari, and M. Rasuli, "Analisis Penerapan E-Planning dan E-Budgeting pada Pemerintah Daerah," *Jurnal Ekonomi*, vol. 26, no. 2, pp. 18–30, 2018.

W. H. DeLone and E. R. McLean, "The DeLone and McLean model of information systems success: A ten-year update," *Journal of Management Information Systems*, 2003.

W. Nitisastro, *Pengalaman Pembangunan Indonesia*. Jakarta: Kompas, 2014.

Z. Arifin, *Adopsi Teknologi untuk Keunggulan Daya Saing*. Jakarta: PT PLN (Persero), 2017.