

Village Government Readiness Toward the Adoption of E-Government

Rini Mayasari¹ Department of Informatics Faculty of Computer Science, Universitas Singaperbangsa Karawang rini.mayasari@staff.unsika.ac.id Nono Heryana² Department of Information System Faculty of Computer Science, Universitas Singaperbangsa Karawang nono@unsika.ac.id Agustia Hananto³ Department of Information System Faculty of Computer Science, Universitas Buana Perjuangan Karawang agustia.hananto@ubpkarawang.ac.id

Abstrak— Pelavanan publik di desa sangat penting karena desa merupakan bagian terkecil dari sistem pemerintahan administratif di Indonesia dan merupakan garda terdepan dalam pelayanan publik. Perkembangan teknologi mendorong pemerintah untuk mengelola pelayanan publik untuk bertransformasi memperbaiki paradigma birokrasi tidak efektif, E-Government merupakan solusi untuk meningkatkan pelayanan publik. Salah satu kegagalan dalam implementasi E-Government adalah ketidaksiapan pemerintah desa dalam melakukan adopsi teknologi informasi. Metode penelitian yang digunakan dalam penelitian ini adalah deskriptif kualitatif. Hasil yang diperoleh, model framework STOPE yang terdiri Strategy, Technology, Organization, People dan atas Environment merupakan model yang paling tepat untuk menganalisis kesiapan pemerintah desa. Dari 5 Domain yang dinilai terdapat 3 domain yang mendapatkan predikat Sangat Siap dan 2 domain yang mendapat predikat Siap.

Kata Kunci— E-Government, STOPE Framework, pelayanan publik

Abstract— Public services in the village are very important because the village is the smallest part of the administrative government system in Indonesia and is the front line of public services. Technological developments encourage the government to manage public services to improve the ineffective bureaucratic paradigm. E-government is a solution to improve public services. One of the failures in implementing E-Government is the village government's lack of readiness to adopt information technology. The research method used in this research is descriptive qualitative. The results obtained suggest that the STOPE framework model consisting of Strategy, Technology, Organization, People, and Environment is the most appropriate model to analyze the readiness of the village government. Of the 5 domains that were assessed, 3 domains received the Very Ready predicate and 2 domains received the Ready predicate.

Keywords— E-Government, STOPE Framework, public service

I. INTRODUCTION

The village government [1] has a strategic role and position in national development because the village government is the smallest part of the administrative government system in Indonesia. Public services [2] in the village are a reflection of public services for higher levels of government, which so far have been carried out conventionally and have a paradigm of



slow bureaucracy, convoluted procedures, and no certainty. Technological developments encourage the government to manage public services to transform to improve the ineffective bureaucratic paradigm because the lack of quality public services is a major problem in Indonesia. One solution is the implementation of E-Government as a whole in public services. This is related to the initiation of E-Government in Indonesia through Presidential Instruction No. 6 of 2001 on Telematics [3].

Village government is an important level of government in a country. Village government plays a crucial role in managing and developing the potential of the village [4], as well as providing public services to village residents. In the era of rapidly advancing information technology, village governments must also be ready to adopt e-government or government based on information technology. E-government is a government system that uses information technology to provide more effective, efficient, and transparent public services [5].

STOPE framework [6] is a framework that can be used to evaluate an organization's readiness to implement egovernment initiatives. The framework includes five components: Strategy, Technology, Organization, People, and Environment. By assessing each of these components, the organization can identify its strengths and weaknesses, and can develop a plan to overcome challenges and capitalize on opportunities. This can help the organization to successfully implement e-government initiatives and improve the delivery of services to the community[11].

Technological developments encourage the government to manage public services to transform them to improve the ineffective bureaucratic paradigm. One solution is the implementation of E-Government as a whole in public services. Adoption of E-Government [7] is absolutely necessary for now. The COVID-19 pandemic forces all public services to be Ready to transform into an Electronic-Based Government System. In accordance with Presidential Regulation No. 95 of 2018 concerning Electronic-Based Government Systems, the implementation of E-Government in Mekarbuana Village [8] requires various preparations to carry out the full implementation of E-Government. Village governments are required to be able to keep up with technological developments and continue to improve their ability [9] to manage population administration and public services in the village.

II. METHOD

The research method used in this research is descriptive qualitative. This is because the researcher wants to explore phenomena that cannot be quantified.

As for the research framework used in this study, it is as shown in Figure 1 below:



Fig 1. Research Framework

III. RESULTS AND DISCUSSION

Based on the results of a study on the information system in Mekarbuana Village, there is no digital-based public information service yet. Furthermore, the researchers carried out an analysis of the problems that are currently running in the process of government activities. It was found to have several problems, one of which was in carrying out various potential information systems and public information services using only conventional media. To analyze the functional requirements of the good village government system that will be made as follows: The system must be able to easily handle the process of conveying information to public acceptance.

The results of literacy studies and data in the field, the required user needs related to the optimization of good village government based on information and communication technology in Mekarbuana Village include:

1. Personal resident

- a. NIK (Population Identity Number)
- b. Full name
- c. Location of birth
- d. Gender
- e. Age
- f. Religion
- g. Phone number
- h. Email address
- i. Blood type
- j. Education
- 2. Population
 - a. Address (village, hamlet, RT, RR, street name)
 - b. Work
 - c. Resident statusd. Residence status
- 3. family
 - a. Marital status
 - b. Family card number
 - c. Father's name



- d. Mother's name
- e. Child relationship
- f. List of family members
- 4. Etc
 - a. Passport number
 - b. Disability
 - c. Competence

In addition to the need for population data collection, there are also other needs, namely data collection:

- 1. Family, Resident registration must have a family head.
- 2. Event logging, the events recorded were residents being born, dying, moving out, and becoming TKI (Indonesian Workers).
- 3. The family card separation.
- 4. Administrative services include certificates of death; certificate of domicile; certificate of incapacity; business certificate; certificate of heirs; certificate of resident land; marriage certificate.
- 5. Village-owned infrastructure services

Analysis of the Implementation of good village government in Mekarbuana Village

- 1. Political Environment the existence of political support is the main determinant of the success of implementing good village government in Mekarbuana Village, with the existence of No. 95 of 2018 concerning the Electronic-Based Government System (SPBE) [10] and Law (UU) No. 6 of 2014 challenging the village to make the implementation of good village government in Mekarbuana Village possible.
- 2. Leadership, the commitment of the village head who shows the political will to adopt E-Government to realize good village government in Mekarbuana Village.
- 3. Stakeholders: There is support from various parties who have direct and indirect interests.
- 4. Service transparency refers to the availability of information and all data that can be accessed by stakeholders and the realization of service transparency.
- 5. The Budget, the availability of a budget to carry out the transformation of E-Government.
- 6. Technology, the presence of technology-assisted public services.

Results of Analysis of Village Government Readiness Toward Good Village Government in Mekarbuana Village using STOPE Frameworks:

No	Sub-Domain	Percentage	Rank	Description
		(%)	(Scale 4)	
1	Strategy	80	4	Very Ready
2	Technology	78	4	Very Ready
3	Organization	75	4	Very Ready
4	People	61	3	Ready
5	Environment	60	3	Ready
STOPE		70.8	3	Ready

Table 1. STOPE Frameworks

The STOPE framework is a tool that can be used to evaluate an organization's readiness to implement e-government initiatives. STOPE stands for Strategy, Technology, Organization, People, and Environment. Each of these components is assessed on a scale from 0 to 100%, with a rank from 1 to 4.

In the example provided, the organization has a very high level of readiness in the Strategy and Technology components, with scores of 80% and 78%, respectively. This indicates that the organization has a strong plan and direction for implementing e-government initiatives, and has a good foundation of technological infrastructure and access to technology.

The Organization component has a score of 75%, which is also considered very ready. This suggests that the organization has a well-defined internal structure and processes, with clear roles and responsibilities, and that there is strong support and commitment from leadership.

The People component has a score of 61%, which is considered ready. This indicates that the organization's workforce is generally able to use technology effectively, but there may be some areas for improvement in terms of training and support, and in fostering a culture of engagement and participation.

The Environment component has a score of 60%, which is also considered ready. This suggests that there is a good level of support and participation from the community, and that there are not significant barriers in terms of legal or regulatory issues.

Overall, the organization has a STOPE score of 70.8%, which is considered ready. This indicates that the organization is well-positioned to implement e-government initiatives, but there may be some areas where additional work is needed in order to optimize the use of technology and ensure that the initiatives are successful.



Fig 2. Village Government Readiness Graph

Below are the results of a SWOT analysis related to the readiness of the village government toward good village government in Mekarbuana Village. Mekarbuana Village's SWOT analysis has an important role for Mekarbuana Village in realizing a good village government based on information and communication technology. SWOT means Strengths, Weaknesses, Opportunities, and Threats. Which means strengths, weaknesses, opportunities, and threats.

a. Strengths

The strengths of the village government's e-government initiatives can be identified by examining several key factors.



One strength is that administration services are provided free of charge. This can make it easier for the community to access government services, particularly for those who may not be able to afford fees.

Another strength is the presence of a system that regulates administrative services. This can help to ensure that services are provided in a fair and consistent manner, and can improve the transparency and accountability of the government.

Another strength is the existence of a clear vision and mission that supports service quality. This can provide direction and guidance for the government as it implements e-government initiatives, and can help to ensure that services are delivered in a way that meets the needs and expectations of the community.

The village government also has a strength in its management of permit application processes. By streamlining and digitizing these processes, the government can make it easier for residents and businesses to apply for permits, and can reduce the time and effort required to complete these processes.

Finally, the village government enjoys a high level of trust and confidence from the community. This can be a valuable asset as the government seeks to implement e-government initiatives, as it can help to encourage community engagement and participation in these initiatives.

b. Weaknesses

There are several weaknesses that may hinder the optimization of the village government's e-government initiatives. One potential weakness is the dissemination of information to the public. If the government is not effective at communicating information about its services and initiatives, it can be difficult for the community to access and use these services. This can result in low levels of engagement and participation, and can make it difficult for the government to achieve its goals.

Another weakness is the current state of the online service. If the online service is not user-friendly or if it does not provide all of the necessary information and services, it can be difficult for the community to access and use it. This can limit the effectiveness of e-government initiatives and make it difficult for the government to deliver services in a timely and efficient manner.

Finally, the village government may still rely on manual processes and services in some cases. This can be a weakness because manual processes are typically slower, less efficient, and more error-prone than digital processes. By transitioning to digital services, the government can improve the quality and speed of its services, and can provide a better experience for the community.

c. Opportunities

There are several opportunities for the village government to optimize its use of information and communication technology in order to improve the delivery of services to the community. One opportunity is the support of the village government. If the government is committed to investing in technology and training, and is willing to create a supportive and inclusive culture that encourages the use of technology, it can provide a strong foundation for the implementation of e-government initiatives.

Another opportunity is the high population growth rate in the village. As the population increases, the demand for government services is likely to grow as well. By using technology to improve the efficiency and effectiveness of its services, the government can meet this growing demand and ensure that the community has access to the services it needs.

Another opportunity is the availability of services around the clock. By providing online services and information, the government can make it easier for the community to access services at any time of day. This can improve the convenience and accessibility of government services, and can make it easier for the community to engage with the government.

The advances in technology, information and communication also present an opportunity for the village government. As technology continues to evolve, the government can leverage these advances to improve the quality and speed of its services, and to provide new and innovative services that meet the needs of the community.

Empowering village employees through technology is another opportunity. By providing employees with the training and tools they need to use technology effectively, the government can improve the efficiency and effectiveness of its operations, and can help employees to deliver better services to the community.

Finally, the Presidential Decree No. 95 of 2018 concerning the Electronic-Based Government System (SPBE) provides an opportunity for the village government. This decree establishes a national framework for the implementation of egovernment initiatives, and can provide guidance and support to the village government as it seeks to optimize its use of technology.

d. Threats

There are also some threats that the village government must consider in its efforts to optimize its use of information and communication technology. One potential threat is the risk of document forgery. If the government relies on digital documents and signatures, it is possible for individuals to forge these documents or signatures in order to obtain services or commit fraud. This can damage the integrity of the government and can undermine the trust of the community.

Another threat is the risk of malware attacks on office documents. If the government uses digital documents and files, it is possible for malware to infect these documents and cause them to be corrupted or lost. This can compromise the security and confidentiality of government information, and can disrupt the delivery of services.

Finally, rapid technological advancement can also be a threat to the village government. As technology continues to evolve at a rapid pace, the government must keep up with these changes in order to maintain the effectiveness and relevance of its e-government initiatives. If the government does not stay up-to-date with the latest technology, it may be left behind and unable to deliver the services that the community needs.



Below is a description of the results of the SWOT analysis related to the optimization of good village government based on information and communication technology in Mekarbuana Village.

Table 2. SWOT Analysis

Strengths	Weakness	
 administration services are free of charge system that regulates administrative services vision & mission that supports service quality Permit application management community trust in village government services 	 dissemination of information to the public. the online service is not optimal yet. manual service usage. 	
Opportunity	Threats	
 Village government support. High population growth rate. Service is available around the clock. Advances in technology, information and communication. Empowerment of village employees through technology. Presidential Decree No. 95 of 2018 concerning the Electronic-Based Government System (SPBE). 	 Document forgery rate Malware attack on office documents Rapid technological advancement 	

By conducting a SWOT analysis, the village government can identify its strengths, weaknesses, opportunities, and threats related to the optimization of good village government based on information and communication technology. This can help the government to develop strategies to overcome challenges and capitalize on opportunities, ultimately leading to improved services and a stronger community.

IV. CONCLUSION

The readiness of the village government to adopt information technology is strongly supported by various factors, either directly or indirectly. During the COVID-19 pandemic, the village government was "forced" to be able to transform and innovate in providing the best service to village communities. The existing infrastructure and human resources in the village government are Ready to adopt and implement technology as a whole in every public service.

Overall, the results of the analysis of the readiness of the village government toward good village government are in

the rating of Ready (3) on a scale of 4 to implement good village government. Domain Strategy has more influence on the readiness to implement E-Government.

REFERENCES

- S. Sugiman, 'Pemerintahan Desa', Binamulia Hukum, vol. 7, no. 1, pp. 82–95, 2018.
- [2] M. H. Bisri and B. T. Asmoro, 'Etika pelayanan publik di Indonesia', Journal of Governance Innovation, vol. 1, no. 1, pp. 59–76, 2019.
- [3] A. Gioh, 'Pelayanan Publik E-Government Di Dinas Komunikasi Informatika Kabupaten Minahasa', Jurnal Politico, vol. 10, no. 1, 2021.
- [4] N. Angelia, B. M. Batubara, R. Zulyadi, T. W. Hidayat, and R. R. Hariani, 'Analysis of Community Institution Empowerment as a Village Government Partner in the Participative Development Process', Budapest International Research and Critics Institute-Journal (BIRCI-Journal) Vol, vol. 3, no. 2, pp. 1352–1359, 2020.
- [5] D. A. D. Putra et al., 'Tactical steps for e-government development', International Journal of pure and applied mathematics, vol. 119, no. 15, pp. 2251–2258, 2018.
- [6] W. E. Y. Retnani, R. F. Ap, and B. Prasetyo, 'Analysis of user readiness level of e-government using stope framework', in 2019 6th International Conference on Electrical Engineering, Computer Science and Informatics (EECSI), 2019, pp. 270–273.

- [7] I. K. Mensah, 'Impact of government capacity and Egovernment performance on the adoption of E-Government services', International Journal of Public Administration, 2019.
- [8] N. Heryana, R. Mayasari, A. S. Y. Irawan, and B. Nugraha, 'Improving Digital Literacy Skills for Mekarbuana Village Officials', ABDIMAS: Jurnal Pengabdian Masyarakat, vol. 5, no. 2, pp. 2496–2501, 2022.
- [9] D. Mustafa, U. Farida, and Y. Yusriadi, 'The effectiveness of public services through E-government in Makassar City', International Journal of Scientific & Technology Research, vol. 9, no. 1, pp. 1176–1178, 2020.
- [10] E. Prihantoro, D. Mukodim, and N. R. Ohorella, 'Policy Analysis for the Implementation of Electronic-Based Government Systems (SPBE) in the City Government of Depok in Realizing an Open, Participative, Innovative and Accountable City Government', Technium Soc. Sci. J., vol. 19, p. 221, 2021.
- [11] A. Alim Murtopo, B. Priyatna, and R. Mayasari, "Signature Verification Using The K-Nearest Neighbor (KNN) Algorithm and Using the Harris Corner Detector Feature Extraction Method," Buana Inf. Technol. Comput. Sci. (BIT CS), vol. 3, no. 2, pp. 35–40, 2022, doi: 10.36805/bit-cs.v3i2.2763.

