The Effectiveness Of The Implementation Of Electronic Government In The Main Priority Village Management Information System (SIMDESPRIMA) In Taopaya District

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Abstract. Challenges in implementing e-government in villages, in SIMDESPRIMA there are still many obstacles such as lack of digital literacy in the community, limited infrastructure and suboptimal system management capabilities, thus hampering the process of implementing SIMDESPRIMA as an effort by the village government in Bintan Regency in developing a village information system that is used to facilitate the management of village data and information in an integrated and accurate manner, which can increase transparency and accountability of village government, and is expected to attract public service processes. This study aims to evaluate the effectiveness of implementing e-government through the Priority Village Management Information System (SIMDESPRIMA) in Toapaya District, Bintan Regency. By using qualitative research methods and effectiveness indicators according to Sutrisno, this study examines aspects of program understanding, target accuracy, timeliness, goal achievement, and real change. The results of the study show that although SIMDESPRIMA has great potential in increasing efficiency, transparency, and public services at the village level, its implementation still faces various obstacles such as low digital literacy, inadequate infrastructure, and lack of ongoing socialization and training. In addition, the system features have not been fully utilized optimally, and community participation in supermarkets is still low. Based on these findings, it is recommended that there is a need for increased training, socialization, strengthening of infrastructure, and firm regulatory support from the village and district governments so that this system can run effectively, sustainably, and truly provide maximum benefits for village communities.

Keywords: Effectiveness, E-Government, SIMDESPRIMA

1 Introduction

The development of information and communication technology plays an important role in efforts to improve the efficiency and transparency of public services at the village government level. In the increasingly rapid digital era, people demand fast, transparent, and accountable public services from the government. The advancement of information and communication technology (ICT) is one of the main solutions in meeting these demands, including at the village level which is the spearhead of government and community services. The local government also realizes the importance of implementing e-government as part of efforts to improve service quality and equitable access to information, especially through the development of a digital-based village information system. One of the innovative systems implemented by villages in Bintan Regency is the Main Priority Village Management Information System (SIMDESPRIMA), which is expected to facilitate village data management while increasing transparency and accountability in village government management in Bintan Regency. The implementation of the E-Government system, including in the context of villages through digital information systems such as SIMDESPRIMA in Bintan Regency, is one of the strategic steps to support good governance.

This system is expected to be able to facilitate village data management, speed up the administrative process, and increase community participation and transparency in the implementation of village government. Based on Law Number 6 of 2014 concerning Villages, especially Article 86, the Village Information System (SID) plays an important role for the village community. To provide services to villagers, the government must adopt a SID in the village, which allows the community to access information about the condition of the village. This method is in line with the principle of transparency in state administration as regulated in Law Number 14 of 2008 concerning Public Information Disclosure and Instruction of the President of the Republic of Indonesia Number 3 of 2003 concerning National Policies and Strategies for E-Government Development. The concept of public service refers to efforts to meet the needs of the community for goods, services, and administration provided by the state as a public service provider.

As an effort to improve public services in village government, Bintan Regency through the Community and Village Empowerment Office collaborated with CV. Multi Performance Synergy as a third party provider of village service systems where the implementation of a village information system that follows one of the pioneering forms of e-Local Government by

developing an application-based administration and public service system in an effort to implement the Strategic Plan of the Bintan Regency Community and Village Empowerment Office for 2021-2026 in attachment XV of the Bintan Regent Regulation Number 66 of 2023 concerning the Strategic Plan of Devices Regions in 2021-2026. A variety of informative programs are needed to improve public services. One of the executions of this program is the Village Information System. It is part of e-government, and aims to improve and streamline the service process at the village government level so that it is easier to solve problems related to village management. By implementing the Village Information System, the village government is expected to increase the efficiency and openness of its public services. This program helps manage data, optimize administration, and make it easier for people to access public services. The goal of this change is to significantly improve the quality of public services at the village level, provide greater benefits to local citizens, and encourage citizens to be more involved in regional developmentThis has encouraged local governments, especially villages, to build e-government with a focus on system integration due to this innovation. As a result, villages must have access to the Village Information System, which can manage data and information thoroughly at the village level. In addition, this system allows villagers and staff to participate in the development of a democratic atmosphere through the use of software [3]. In addition, this program helps the village government document data and community activities more efficiently [14]. The use of information systems can facilitate and increase the efficiency of village government [27].

Law Number 6 of 2014, which focuses on villages, seeks to encourage the use of information technology and achieve an electronic-based government system. According to Article 86, villages can and should have a Village Information System (SID) to improve village services and improve the efficiency of village administration. Effectiveness is a measure of success in achieving the goals of an organization. An organization can be considered to be operating effectively if it successfully achieves its goals [18]. Effectiveness generally refers to the relationship between outcomes or achievements and organizational goals and actions. How an organization can achieve its goals through the implementation of the right policies and procedures is called performance. In such a situation, the results obtained in relation to the goals that have been set

can be used to measure the level of organizational effectiveness [12]. These results are calculated by taking into account pre-established policies and procedures. Effectiveness is defined as the relationship between goals to be achieved. Processes or activities are considered effective if they succeed in achieving policy objectives [7]. In summary, effectiveness is important to achieve goals. Understanding of the program, accuracy of targets, timeliness, achievement of goals, and real changes are included in the category of effectiveness measurement proposed by [9].

The DPMD Strategic Plan for 2021–2026 explains guidelines for the implementation of the implementation which aims to provide services and convenience to various important aspects of the village. According to Rahmawati (2020), the purpose of this service is to provide broad access to information to the public. A tool called a Village Information System (SID) consists of hardware, software, networks, and human resources, and is intended to assist village communities in managing village resources and participating in the decision-making process and implementation of development programs [5]. E-government innovations that have been developed at the village level as an application of the village information system. Its function is as an application that helps the village government store data about local life. More broadly, a village information system or SID is a set of systems that combine hardware, software, and human resources to manage the resources of a village community. The main objective of the SID is to create transparent and accountable village governance and to increase community access and participation in the decision-making process.

The Main Priority Village Management Information System (SIMDESPRIMA) is an implementation of one of the Village Information Systems (SID) with the aim of encouraging openness and access to information at the village level in Bintan Regency. As stated in Law Number 6 of 2014 concerning Villages, Article 86 requires the government to implement the Village Information System (SID) in the village to provide the best service to the community. This shows how important the SID is to the village community. People can more easily get information about their villages through SID [27]. Village governments can use information technology to interact and share data with residents, facilitate village government management, and provide better services and information to the communityIn addition, better data processing and community services can be achieved through the use of information technology [24]. One way to measure the effectiveness of the Village Information System is to assess how far the goals have been set in the operation of the system [26].

According to Sedjati (2015), effectiveness determines success in achieving ideal productivity results. The ability to achieve targets in terms of quantity, quality, and set time is part of this effectiveness. The end result will affect the overall performance success. Any type of organizational and program operation depends on success in achieving the agreed goals and objectives. The ability to successfully achieve the goals that have been set is called effective [27]. In system-based government, development innovation is essential for the growth and progress of government organizations, especially village governments. There are many innovations in the public sector, including new service products, processes, service methods, strategies, and policies, as well as system innovations. In this case, SIMDESPRIMA can be considered as a village service innovation because it involves changes in the interaction between the village government and the community and related stakeholders. The Village Government in Bintan Regency has implemented a SID innovation known as the Main Priority Village Management Information System (SIMDESPRIMA) from 2019 where every village in Bintan Regency is required to use the system. The system is open to the public, so anyone can use it to improve public services that are

given by the village government office. It is hoped that this system can increase the efficiency and speed of digital services at the village level, helping the growth of the digital economy in the area. Each village in Bintan Regency collaborates with a third party in the use of the system to provide village-level services. Therefore, the development of the Main Priority Village Management Information System (SIMDESPRIMA) is needed to improve the efficiency of village administrative activities and services. With SIMDESPRIMA, the community, government, and village officials can easily access information from the existing Village Information System. In the table below is the data on the number of visits to SIMDESPRIMA users in Bintan Regency as follows:

No.	District	Village	Total Visits	Accumulation
1	East Bintan	Air Gelubi	5.463	6.193
		Kelong	9.533	
		Mapur	4.488	
		Numbing	5.288	
2	North Bintan	Lancang Yellow	5.463	5.463

3	Mount Kijang	Mount Kijang	6.535	5.741
		Unfortunate Meetings	4.596	
		Teluk Bakau	6.093	
4	Stuttgart	New Spell	4.564	4.545
		Old Mantang	3.854	
		Mantang Besar	5.730	
		Dendun	4.035	
5	Sri Kuala Lobam	Busung	5.032	4.998
		Kuala Sempang	6.161	
		Sasah Bay	3.801	
6	Tambelan	Batu Lepuk	4.246	3.913
		Malay Village	4.484	
		Kampung Hilir	4.740	
		Mentebung	3.686	
		Pulau Pinang	3.551	
		Kukup	2.773	
		Scraper	3.916	
7	Sebong Bay	Rafting	5.390	5.220
		Ekang Aculai	7.989	
		Inviters	4.940	
		Sebong Lagoi	4.258	
		Sebong Pereh	4.224	
		Sri Bintan	4.519	
8	Bintan Bay	Bintan Buyu	5.358	5.553
		Pangkil	4.208	
		Acacia	10.045	
		Squirrels	4.277	
		Tembeling	3.879	
9	Toapaya	Toapaya	3.424	7.310
		Toapaya Selatan	6.730	
		North Toapaya	11.777	

Table 1. Number of SIMDESPRIMA User Visits

Based on table 1, it can be explained that in Toapaya Village, which consists of Toapaya Village, North Toapaya Village, and South Toapaya Village, the cumulative number of visit statistics in 9 sub-districts in Bintan Regency with 7,310 accesses in 2024 means that village users in the sub-district have used this system from their village government or from the community and are expected to understand the use of the system. So that the system can run according to the

expectations for which this system is intended. SIMDESPRIMA to assist in the management of public data and information from the planning stage to budget accountability. However, the implementation of this system is not without obstacles. Limited infrastructure, low digital literacy of the community, and the ability of village managers are the main challenges in system optimization. Moreover, the success of SIMDESPRIMA is highly dependent on the readiness of the village and the community to make maximum use of it. However, the functions and benefits of the implementation of e-government, especially through digital-based village information systems such as SIMDESPRIMA, still need to be studied in depth to find out the extent of its effectiveness in strengthening village governance and public services. Therefore, this study is directed to examine the effectiveness of the implementation of e-government through the Main Priority Village Management Information System (SIMDESPRIMA) in Toapaya District, Bintan Regency. This research aims to provide a comprehensive overview of the benefits, obstacles, and potential improvements that can be made to increase the success of the implementation of the system. It is hoped that the results of this research can be a strategic reference in the development of a digital-based village information system that is more responsive, effective, and sustainable.

2 Research Methods

This research uses a qualitative research method with a descriptive approach. The qualitative approach is a research approach that is based on postpositivism and looks at the condition of natural objects. Data were collected by triangulation (combination) methods, and interpreted by inductive or qualitative methods. According to Sugiiyono (2019)[8], the results of qualitative research emphasize more on meaning than generalization. Open-ended interviewing, a qualitative method, is used to study and understand the attitudes, behaviors, feelings, and beliefs of individuals or groups of people. The goal of this method is to gain a better understanding of the subject. There are three stages in this process: data reduction, data submission, and verification or drawing conclusions. This study uses the theory of measuring program effectiveness [9], which includes program understanding, target accuracy, timeliness, goal achievement, and real change.

In this study, the researcher selected three villages in Toapaya District, namely Toapaya Village, North Toapaya Village, and South Toapaya Village, Bintan Regency as research locations. The selection of this location is based on considerations of existing problems and the

suitability of statistical data of SIMDESPRIMA visits where it looks at the extent to which the village understands the use of the system as an application of e-government in village services, especially related to the effectiveness of SIMDESPRIMA which is not optimal in providing independent services online or digital. According to Sugiyono (2019), interviews, social interactions between informants and researchers, are the data collection methods used. This method involves researchers who directly visit the location to be investigated. Questions asked orally are used in interviews to collect data. In addition, the document also serves as an indirect data collection method that provides researchers with supporting data. Figures and tables are the documents used in this study. Primary data that

was obtained through interviews, and secondary data, obtained from journal articles and websites related to the research subject, were the data sources used in this study. To select informants for the study, the researcher used the purposive sampling technique, which involves sampling data based on certain considerations. The goal of this technique is to find important informants that are relevant to the focus of the research. To ensure the accuracy of the research, the selection of informants was carried out deliberately and not randomly. The information provided was selected based on their ability to provide clear information about the problem being researched and the conditions of the research area. Therefore, the informants in this study, the researcher took 13 informants, namely village officials in the village government of Toapaya District consisting of the village head or village secretary, kasi or village head, and village operators of Toapaya District, the Community and Village Empowerment Office of Bintan Regency as monitors the use of the system used by the village, CV. Sinergi Multi Performa as a system provider that collaborates directly with the village for the use of the system, and also the local community in the Toapaya District area as a result of the implementation of a system used by the village.

3   Result and Discussion

Policy The application of e-government in information systems involves a series of activities that aim to meet the needs of village services as contained in Law No. 6 of 2014 concerning Villages regarding the development of Village Information Systems (SID). How effective the Village Information System is in achieving goals can be measured. An important

factor in achieving the goals and objectives that have been set for each organizational or program activity is efficiency. Effectiveness is achieved when the goals and objectives that have been set are successfully met. This study aims to evaluate the effectiveness of the Main Priority Village Management Information System (SIMDESPRIMA) in the three villages in Toapaya District, where this system is only used in the scope of village government, meaning that there are three villages in Toapaya District that use this system: Toapaya Village, North Toapaya Village, and South Toapaya Village. The measurement of effectiveness proposed by [10] includes understanding of the program, accuracy of goals, timeliness, achievement of goals, and real changes. With this method, the study aims to find out how successfully the Village Information System achieves the public service goals that have been set and how much change is expected to have occurred.

3.1 Main Priority Village Management Information System (SIMDESSPRIMA)

In 2018, the Village Information System was born which was developed by CV.SM-Performa and in collaboration with the Bintan Regency Community and Village Empowerment Office which is a very beneficial innovation for the Regency Government, District Government and Village Government under the name OpenSID which then in 2019 began to implement the use of SIMDESPRIMA in 36 villages in Bintan Regency, and efficiently use of features in the system by villages in 2023. The implementation of this system is required to be used by village governments in Bintan Regency as a form of e-Local Government pilot by developing an application-free public administration and service system in an effort to implement the Strategic Plan of the Bintan Regency Community and Village Empowerment Office for 2021-2026 in attachment XV of the Bintan Regent Regulation Number 66 of 2023 concerning the Regional Apparatus Strategic Plan for 2021-2026. The Regency and Sub-district Governments with the existence of SIMDes can monitor the development of village information without having to wait for a report from the Village Head. On the other hand, the Village Head and the Village Apparatus no longer need to waste a lot of time, cost and energy to provide reports to the District and District.
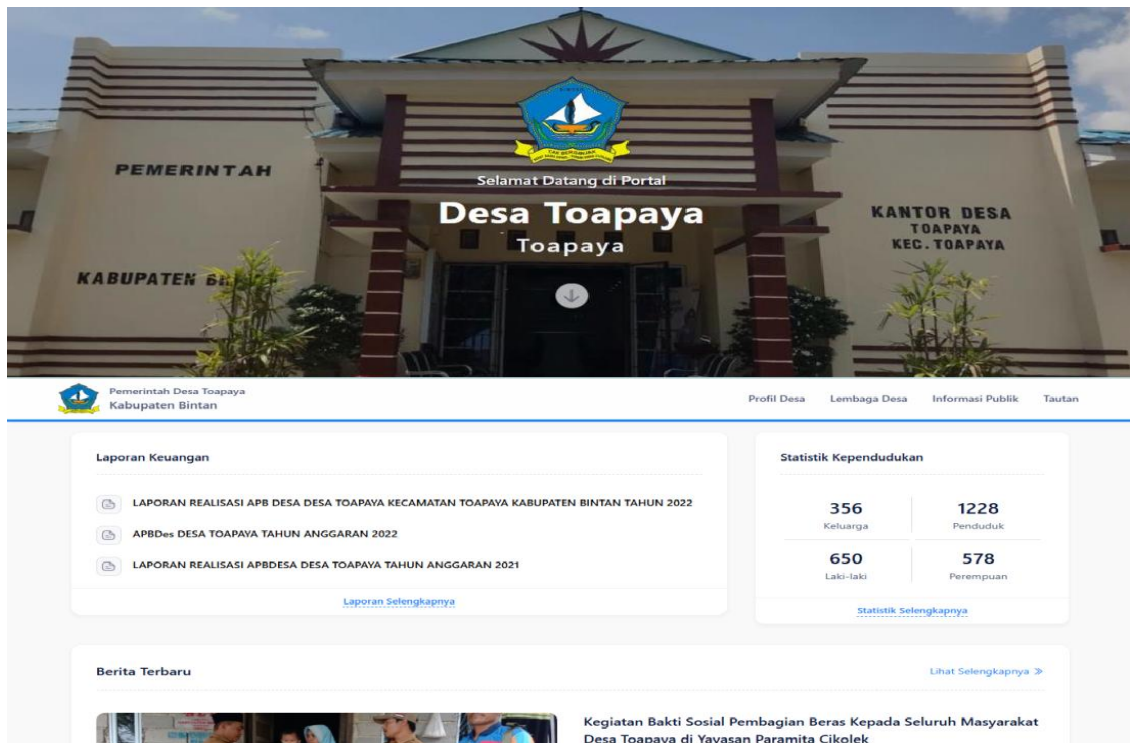
Figure 1. User Page View (Front-End)

The village information system or SIMDes began to be implemented in 36 villages in Bintan Regency in 2019 under the name SIMDESPRIMA (Main Priority Village Management Information System) which every year develops the system so that the implementation of the use of the system runs in accordance with the goals and objectives, only in 2024 will there be no technical guidance related to the novelty of the system. The Main Priority Village Management Information System (SIMDESPRIMA) is a computer system or application that helps villages in the form of a website containing information related to a village in Bintan Regency, with the aim of making village offices efficient and effective in village government that is more transparent and accountable to the public regarding its governance. SIMDESPRIMA aims to manage village administration and service activities. Better public services, people get better access to village information that can apply information systems to advance their villages. The presence of websites in each village will provide various easy access for stakeholders from the community, government, private sector and even practitioners and

academics consisting of Village Objects, Independent Services, E-Performance, Monitoring Systems, and Market Places.

The commitment of the Bintan Regency Village Community Empowerment Office provides opportunities for villages in Bintan to go public across space and time. CV. SM-Performa as a partner company that initiated and implemented the first online village or e-village program in Riau Islands Province. Villages in Bintan must become a "Pilot Project" in various ways, especially in the field of services to the community and are required to be able to prosper the community through various innovations that will continue to be developed in the future.

The SIMDESPRIMA website in Toapaya District can be accessed

1.Toapaya Village: https://toapaya.simdesprima.id/

2.North Toapaya Village: https://toapayautara.simdesprima.id/

3.South Toapaya Village: https://toapayaselatan.simdesprima.id/

3.2 Research Results

The results of this study show how effective the implementation of e-government is in the Main Priority Village Management Information System in Toapaya District which consists of three villages that use the system, namely Toapaya Village, North Toapaya Village, and South Toapaya Village, Toapaya District, Bintan Regency. As a village government agency, it is required to use SIMDESPRIMA as a village service, therefore the use of the system must show the effectiveness of the implementation of the system. The effectiveness of implementation according to Sutrisno, 2007 consists of five points, namely program understanding, accuracy of targets, timeliness, achievement of goals, and real changes. This study used interviews with a number of selected informants to collect data.

To find out how effective the use of e-government is in the Main Priority Village Management Information System in Toapaya District, Bintan Regency, the researcher conducted in-depth interviews with several selected resource persons. The resource persons included village governments in three villages in Toapaya District consisting of village heads and village secretaries, village heads and village heads, SID Operator Staff, CV Directors. Multi-Performance Synergy as a system provider for villages, Non-Governmental Mobilizers in the Field of Village Government and Village Apparatus of the Bintan Regency Community and Village Empowerment Office as monitors the use of the system and the community as the output of the implementation of this system.

The results of the research on the effectiveness of the implementation of e-government in the Main Priority Village Management Information System in Toapaya District, Bintan Regency are described as follows:

1.Program Understanding

The SIMDESPRIMA program is a digital platform that helps villages manage data and information efficiently, transparently, and accurately. The use of this system is mandatory in each village, and village officials must understand how it operates. The understanding of this program is related to the readiness of village officials in using the Main Priority Village Management Information System (SIMDESPRIMA). This system is designed to help manage village data in an integrated manner, and as a medium for monitoring and evaluating village activities. The operation of this system is carried out by village operators who must understand the features and functions of SIMDESPRIMA, as well as be able to operate it independently. This system helps speed up village data processing and provides convenience in monitoring and evaluating village activities, so that the data presented is more accurate and up-to-date. The community and village officials can access village information through the available website, and this system is part of efforts to modernize village government. The goal is for the village to be easier, faster, and more accurate in conveying information to the community, as well as monitoring village activities in real-time without having to wait for manual reports from the village head. Since 2019, the village in Toapaya has collaborated with a third party, CV. Synergy Multi Performa, to use this system at a cost of around IDR 4.9 million per year, for server rental and assistance. So, this system is not only for data management, but also as a medium for transparency and monitoring of village activities to the community and related institutions. The implementation of e-government through SIMDESPRIMA makes village data management more structured and integrated. But, in fact, in the field, the use in villages such as Toapaya, North Toapaya, and South Toapaya is still not optimal. There are many factors that make this system not run smoothly, such as lack of understanding of village operators, inadequate infrastructure facilities, and features in the system that are incomplete or there are often technical problems such as frequent maintenance. Village operators as the main users of this system, although they admit to understand and realize the benefits, many of them feel that there are obstacles in running the system in full. They need more training, socialization, and technical support so that they can take full advantage of all the features. There are also manual operation

issues as some features are incomplete or not ready to use. In addition, public access to this system is also necessary

Note. The SIMDESPRIMA website is designed to be easily accessible and the reports are comfortable to see, but if people do not have adequate devices such as smartphones and a smooth internet connection, of course the use of this system will be limited. Monitoring by the sub-district and the district itself also continues to be carried out periodically to ensure that the incoming data is valid and the system runs as expected. In general, the implementation of SIMDESPRIMA has great potential to increase efficiency, transparency, and community participation in village development. However, its success is highly dependent on human resource support, infrastructure, and system adjustments to suit the needs of villages and communities. It is also important to continue to carry out training, system development and socialization so that the community and village operators both understand and are able to operate this system properly. So, even though there are still obstacles now, the spirit and commitment of all parties to bring the village towards digital must still be encouraged, so that the benefits can be maximized and sustainable.

2.Target Accuracy

The main goal of SIMDESPRIMA is to provide relevant and complete data, as well as to make it easier for users such as the community, village apparatus, sub-districts, and districts to access village data accurately and on time. This system is designed to target village data and its users appropriately. The accuracy of the target in the context of SIMDESPRIMA refers to the extent to which this system is able to effectively meet the main needs of the village community and the interests of the village government. This system is expected to be able to present accurate, complete, and relevant data, as well as be easily accessible to users who really need this information. In addition, the system must have clear goals, such as increasing transparency, services, and community participation. In its implementation, the accuracy of the target in the field of e-government in the village is directly related to the ability of the village government to ensure that the services provided are truly targeted at the right users and according to their needs, namely the village community and village officials. Based on interviews with village heads in Toapaya District, the implementation of SIMDESPRIMA has helped open access to information and transparency in village management, including financial management and village development. This system enables more efficient supervision and monitoring, as well as data presented in real-time, resulting in faster decision-making and valid data. The results of the

study show that the implementation of e-government through SIMDESPRIMA makes a great contribution in achieving village service goals, especially in centralized and integrated data management. This makes it easier to monitor and evaluate target achievements, as well as reduce the possibility of errors or duplication of data. However, in the field, obstacles are still found, such as the low level of understanding of the community and village officials in operating this system, as well as limited internet access in certain areas which also affect the effectiveness of the system. Along with increasing the flexibility of reporting and monitoring, e-government is also able to increase the responsiveness of village governments to obstacles and challenges that arise. With more accurate and up-to-date data, village policies and services can be prepared in a more targeted and effective manner, while increasing public trust in the performance of village government. However, there are challenges such as technological infrastructure that still needs to be improved, especially in remote areas, as well as the importance of training and education for the community so that they can make optimal use of this system. Efforts to increase the capacity of human resources and continuous socialization are needed to ensure that all levels of society are able to utilize this e-government system, so that success in achieving the accuracy of the system's goals can be maximized. Overall, this study confirms that the implementation of SIMDESPRIMA has a positive impact on the accuracy of village service targets. However, for optimal results, it takes effort sustainable in the development of infrastructure, education, and digital literacy, so that the e-government system can be an effective, efficient, and accountable tool in providing targeted public services.

3.Timeliness

Punctuality refers to the ability of the village to input and submit data and reports in a timely manner. This system helps speed up data processing and reporting, as well as monitor the stages of village activities in real-time. The implementation of the e-government system through SIMDESPRIMA in Toapaya District shows a positive impact on increasing punctuality in village services. Punctuality is an important indicator that reflects the reliability, efficiency, and quality of village services to the community. With this system, the process of filling and processing village data can be carried out faster and automatically, so that all activities can be completed according to the targets and schedules that have been determined. According to the source, the input of village data by village operators does not take long, except when there is a system disruption. Data replenishment is carried out at least twice a month as needed, and this process runs effectively thanks to the automation and data integration provided by the system.

This system allows direct monitoring and evaluation of village activities by both the sub-district and the district, accelerating coordination, and improving the efficiency of village services. In addition, the village head as the leader also supports the successful implementation of this system, especially in fostering SID management. SIMDESPRIMA also increases the transparency of village governments, facilitates reporting to sub-districts and districts, and supports annual monitoring and evaluation activities carried out by related parties. Another positive impact is the digitization and automation of personnel data for village apparatus which accelerates instant and accurate data verification. This system also facilitates public transparency through the provision of village information such as activity news and population data that can be accessed widely without having to come to the village office. Prior to this system, the manual process of requesting data was quite time-consuming and labor-intensive, but now it can be completed quickly and efficiently thanks to easy access and integration in a single platform. Overall, the use of SIMDESPRIMA as part of e-government in Toapaya District has increased timeliness in village services, accelerated the data processing process, strengthened transparency, and provided convenience for village officials and the community. This digital innovation is a strategic step in strengthening more effective, efficient, and accountable village governance.

4.Goal Achievement

The main goal of the implementation of e-government is to improve village services digitally to speed up services, increase transparency, accountability, and facilitate data-based decision-making. The system is directed to facilitate the monitoring of village activities by the district and sub-district governments as well as the community. The implementation of the Village Management Information System (SIMDESPRIMA) is part of an e-government initiative that aims to improve efficiency, transparency, accountability, and ease of access to village services to the community. This system is expected to be able to change the village service process to be more digital, effective, and fast, so that it can support the prosperity and welfare of the village community. Through this system, village activity supervision can be carried out in real-time without having to wait for conventional reports from village heads and other village officials, thereby minimizing the use of time, costs, and energy. Interview from the system provider, CV. SM-Performa, revealed that the presence of an integrated village website provides easy access for all stakeholders, including the community, government, private sector, practitioners, and academics. The collaboration between the Bintan Regency Village

Community Empowerment Office and CV. SM-Performa opens opportunities for villages in Bintan to increasingly go-public and expand community service innovations and village development. The main goal of the development of SIMDESPRIMA is to build a more open and accountable village by providing neat, structured, and easily accessible data. This system also supports data collection on village assets, institutions, finance, BUMDes SMEs, and storefronts of village SME products. Through this mechanism, it is hoped that the decision-making process will be more targeted, efficient, and supported by quality data.

However, in practice, the adoption and utilization rate of SIMDESPRIMA in Toapaya District is still relatively low, especially in North Toapaya Village which has not filled in the e-performance of village apparatus at all and the management of village administrative data is not optimal. The main causes are the lack of regulations, direct instruction from the village head, and the low understanding of village apparatus human resources towards the use of technology. On the other hand, South Toapaya Village shows a routine level of e-performance filling even though it is not comprehensive. Filling out this e-performance is an important basis in providing allowances, fixed income, and as a form of evaluating the performance of village officials. Monitoring of village activities is carried out periodically by sub-districts and districts, both through direct checks in the field and the use of dashboards and reports from the system. This aims to ensure that the use of SIMDESPRIMA runs according to procedures, complete and valid data, and supports village development independently and sustainably. The SIMDESPRIMA ecosystem itself includes E-Performance modules, self-service, monitoring, and BUMDes SMEs. However, there are still obstacles in implementation such as low participation of residents in using independent services and village SME catalogs that are not optimally used. This is due to the lack of socialization, training, and strengthening of regulations from village leaders and related parties. You can see the table below regarding the participation in filling out the e-performance of village apparatus whose percentage is systematically in the application:

Table 2. Number of SIMDESPRIMA User Visits

Yes	District	Total Employees	Percentage of Supervisors Who Fill SIMDESPRIMA January-June 2024					
			Jan	Feb	Mar	Apr	May	Jun
1	Toapaya	45	22,22	22,22	17,78	22,22	24,44	28,89
	Toapaya Village	14	0	0	7,14	0	0	7,14
	Number of Employees Filling		**0**	**0**	**1**	**0**	**0**	**1**
	North Toapaya Village	15	0	0	0	0	0	0
	Number of Employees Filling		**0**	**0**	**0**	**0**	**0**	**0**
	South Toapaya Village	16	62,50	62,50	43,75	62,5	68,75	75
	Number of Employees Filling		**10**	**10**	**7**	**10**	**11**	**12**
No	District	Total Employees	Percentage of Supervisors Who Fill SIMDESPRIMA July-December 2024					
			Jul	Agt	Sep	Oct	Nov	Some
1	Toapaya	45	28,89	26,67	24,44	26,67	20	20
	Toapaya Village	14	7,14	0	0	0	0	0
	Number of Employees Filling		**1**	**0**	**0**	**0**	**0**	**0**
	North Toapaya Village	15	0	0	0	0	0	0
	Number of Employees Filling		**0**	**0**	**0**	**0**	**0**	**0**
	South Toapaya Village	16	75	75	68,75	75	56,25	56,25
	Number of Employees Filling		**12**	**12**	**11**	**12**	**9**	**9**

In terms of human resources, the filling of e-performance by village officials shows a low participation rate, with an average percentage of new filling of around 21.48% cumulatively from January to December 2024 in Toapaya District. This obstacle is exacerbated by the lack of supervision from the sub-district and district sides, as well as the absence of firm instructions from the village head. In fact, filling in e-performance is very important to assess the discipline and performance of village officials, as well as support objective performance quality measurement. In addition, the monitoring process is carried out periodically to ensure the

effectiveness of the use of the system and alignment with village development. The evaluation from the local government emphasizes the importance of increasing the awareness of village officials through training and socialization as well as regulatory enforcement so that this system can function optimally and contribute directly to improving public services, transparency, and efficiency of village management. Broadly speaking, although SIMDESPRIMA has shown great potential in supporting digital-based village governance, the realization of its benefits still requires commitment, awareness, and full support from all related elements so that it can be used optimally. The implementation of this system is expected not only to be a symbol of technological success, but to really feel the benefits by the village community and all village government apparatus.

5.Real Change

The real changes seen are efficiency in data management and reporting, faster administrative processes, and more transparent and real-time monitoring. Before this system came along, data management had to be manual, time-consuming, and error-prone. Now, the management of village data and reports is carried out through a digital system that is automated and can be accessed at any time. The implementation of the e-government system through SIMDESPRIMA in Toapaya District shows that there are real changes in the process of managing data and village services. This system, in general, is able to increase efficiency, speed, and transparency in reporting and processing village administration, so that the process of collecting data and village reporting becomes more structured and fast. In addition, SIMDESPRIMA provides easy access to village reports at the sub-district and district levels in real-time, which previously required a manual process and took quite a long time. However, the results of interviews with various parties show that the implementation of this system has not optimally met the expectations of the community and the village itself. The village head and village apparatus admitted that SIMDESPRIMA is limited to being used for village internal and reporting, while system-based services to the community have not yet been realized. The community also feels that this system is only limited to an information medium about village development, without online services that really make it easier for them to obtain village services independently. For the public, the lack of direct socialization and innovative content makes them confused about the main benefits of the system. In addition, the main challenge in the implementation of e-government lies in technical constraints and lack of effective socialization. Uneven internet access in rural areas, especially in hard-to-reach areas, is a major

obstacle to the success of this system. Many people are not used to using technology, and the lack of training and assistance from village officials also affects the maximum use of the system. Village operators also acknowledged that the lack of socialization and content innovation led to low public interest and understanding of the system. They realize that geographical factors and internet access are the main obstacles that must continue to be overcome. The initial efforts made in the form of using systems for village reporting and management have provided benefits in terms of time and cost efficiency and allow real-time monitoring of village activities. Overall, although SIMDESPRIMA was able to have a positive impact on the village administration and reporting process, there was a real change in terms of direct services to

society has not been fully realized. Technical challenges, less effective socialization, and public perceptions that do not fully understand the benefits of the system are the main obstacles. Therefore, strategic steps are needed in the form of training, more intensive socialization, and increased access to technology so that this e-government system can function optimally and meet service goals according to community expectations.

4 Conclusion

The implementation of the e-government system through SIMDESPRIMA in Toapaya District, Bintan Regency, has great potential to increase efficiency, transparency, and modernization of village data management. However, in reality, the effectiveness of this system is still far from optimal and is in the development stage. The main obstacles faced include lack of understanding and socialization of the program, limited technological infrastructure such as internet connections and hardware, and low levels of literacy and understanding of the community and village apparatus of the system. Many features have not been fully filled, thus reducing the maximum benefits of the system, which shows the need for continuous improvement from technical, human resources, and infrastructure aspects. In terms of target accuracy, SIMDESPRIMA has shown positive developments in providing accurate and complete village data, which facilitates monitoring and decision-making. Obstacles such as limited internet access and lack of digital literacy make services not fully felt by the community at large, so their effectiveness still needs to be improved through continuous education and socialization. In terms of timeliness, this system is quite effective in accelerating, simplifying, and strengthening village data management, as well as increasing the speed of digital-based administrative services. The application of automation and data integration helps villages in

more efficient and transparent management. However, the achievement of the main objectives of this system, which is to increase the efficiency, transparency, and accountability of village management and facilitate data monitoring, is still not optimal. Some villages, such as North Toapaya Village, have not utilized the system optimally, especially in filling in data and utilizing existing features. Lack of socialization, strict regulations, and the readiness of human resources are the main inhibiting factors. In general, the positive changes that have been seen are in the aspects of administrative process efficiency and data transparency, where management and reporting have become faster and more accurate. However, the direct benefits to the community are still limited due to technical constraints, lack of socialization, and low levels of digital literacy in the community. The effectiveness of the system is more felt at the internal level of the village, while its impact on direct public services to the community still needs attention and improvement. In conclusion, the implementation of SIMDESPRIMA shows promising results but requires more effort in terms of socialization, infrastructure improvement, human resource training, and commitment from all parties so that this system can provide maximum benefits, on target, and sustainable to improve the welfare and services of the village community.

References

[1] A. Dwiyanto, A. (2021). Realizing Good Governance Through Public Services. Yogyakarta.

[2] Gadjah Mada University Press.

[3] Hadi, A., & Rusman. (2021). Qualitative Research: Phenomenological Studies, Case Studies, Grounded Theory, Ethnography, Biography. CV. Pena Persada.

[4] Indrajit, R. E. (2006). Electronic Government (Development Strategy and Development of Public Service System Based on Digital Technology). Yogyakarta: Andi.

[5] Mardawani. (2020). Practical Qualitative Research of Basic Theory and Data Analysis in a Qualitative Perspective. Deepublish.

[6] Nasir, A., Zakiyah. W., & Winarso, U. T. (2013). Guidelines for the Implementation of the Village Information System (SID) and Participatory Monitoring. Yogyakarta. Insist Press.

[7] Rianto, P., (2018). Village Information System and Access to Information. Media Regulators & Regulators.

[8] Sedjati, R. S. (2015). Strategic Management. Deepublish.

[9] Sugiyono. (2019). Quantitative, Qualitative and R&D Research Methods. Bandung: Afabet. Sutopo, H. (2002). Qualitative Research Methodology. University of Sebelas Maret Press.

[10] Sutrisno, E. (2007). Organizational Culture. Jakarta: Kencana Prenada Media Group. Sutrisno, E. (2007). Human Resource Management. Jakarta: Kencana.

[11] Umam, K., Halim, F. R., & Purnamasari, O. (2022). The Implementation of Cross-Sector E-Government in Advancing the Effectiveness and Efficiency of the Wheel of Government. Bandung. Department of Public Administration FIFIP UIN SGD Bandung.

[12] Utama, Y. P., Putra, I. B. U., & Amerta, I. M. S. (2021). Public Information Disclosure. Surabaya : Scopindo Media Pustaka.

[13] Zulhakim, A. (2012). Getting to Know E-Government (Understanding the Concept of E-Government Applications As a Public Service Innovation).

[14] Apriyansyah, A., Maullidina, I., & Purnomo, E. P. (2019). The Effectiveness of the Village Information System (SID) in Public Services in Dlingo Village, Dlingo District, Bantul Regency. JAKPP (Journal of Policy Analysis & Public Services, 10-24.

[15] Adhitama, M., Adiwidjaja, I., & Dharma, R. (2021). Implementation of Electronic Government in Public Services in Junrejo Village. Intellectual Journal of Public Administration and Communication Sciences, 85-90.

[16] Afriani, V. N. (2022). The Effectiveness of E-Government Implementation on Services in Bogor Public Service Malls. [Thesis]. Jakarta (ID): Islamic University.

[17] Dzaky, A. (2024). The Effectiveness of the Implementation of E-Government in the Population Administration Information System (SIAK) at the Population and Civil Registration Office of Gowa Regency. [Thesis]. Makassar (ID): University of Muhammadiyah Makassar.

[18] Erawati, I., Darwis, M., & Nasrullah, M. (2017). Effectiveness of Employee Performance at the Pallangga District Office, Gowa Regency. Journal of the Office, 3(1): 13.

[19] Farida, I., Setiawan, R., Maryatmi, A. S., & Juwita, M. (2020). The Implementation of E- Government in the Industrial Revolution Era 4.0 in Indonesia. International Journal of Progressive Sciences and Technologies , 340-346.

[20] Indrajit, E. (2006). Electronic Government : The Concept of Internet-Based Public Services and Information Technology. APTIKOM, 3.

[21] Indrayani, E. (2017). The Effectiveness of the Electronic Village Administration Processing Program (PADE) in Mantup Village, Mantup District, Lamongan Regency. Published, Vol. 5, No. 1.

[22] Kurniawati, S., & Mursyidah, L. (2023). The Effectiveness of Information Systems in Public Services in Kalidawir Village, Sidoarjo Regency. Musamus Journal Of Public Administration.

[23] Lael, D. Z. L. (2022). The Effectiveness of the Use of E-Government in Banyumas Regency. [Thesis].

[24] Purwokerto (ID): State Islamic University.

[25] Mensah, I. K. (2020). Impact of Government Capacity and E-Government Performance on the Adoption of E-Government Service. International Journal of Public Administration, 303- 311.

[26] Again, Zuriatin, Nurhasanah. (2024). Digital Transformation of Public Services: Challenges and Prospects in the Implementation of E-Government in Bima Regency. Public Service And Governance Journal, 21-37.

[27] Nurmandi, A., Kurniasih, D., Supardal, & Kawisi, A. (2020). Government Information Technology.

[28] Pangestika, A., & Sari, Y. (2016). The Effectiveness of the Implementation of the Regional Management Information System (SIMDA) at the Regional Financial and Asset Management Revenue Office (Dppkad) of Tegal Regency. Journal of Polytechnic Harapan Bersama, Vol 1, No 1.

[29] Rahayu, A. D., H., (2021). The Effectiveness of Information Systems in Purwogondo Village, Boja District, Kendal Regency. Journal of Public Policy. 113-129.

[30] Rahmawati, W., & Tyas, Z. (2020). Development of Village Information System for E Government in Girikerto Village. Proceedings of the National Seminar on Information Dynamics, Vol.4, No.1.

[31] Rihardi, S., Yusliwidaka, A., & Mazid, S. (2019). The Effectiveness of Government in Public Services with Sikdes (Village Connectivity Information System) (Case Study in Sidorejo Village, Bandongan District, Magelang Regency). Journal of Public Administration and Local Governance, 70-81.

[32] Tasyah, A., Lestari, P., & Syofira, A. (2021). Digital-Based Public Service Innovation (E-Government) in the Covid-19 Era. Journal of Administrative Science, Media, Development, Science and Administrative Practice.