

The Implementation of E-Government Through The Village Information System (SID) in Kureksari Village, Waru District, Sidoarjo Regency

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ABSTRACT

Objective: This study aims to analyze the implementation of the Village Information System (SID) in Kureksari Village in accordance with Sidoarjo Regent Regulation Number 98 of 2022, focusing on the factors that support and hinder the provision of transparent information services for the community. **Method:** A qualitative descriptive case study approach was employed, with data collected through observation, interviews, and documentation, and analyzed using Indrajit's (2005) balanced e-government scorecard framework, which includes the dimensions of benefits, efficiency, participation, transparency, and change management. **Results:** The findings reveal that supporting factors include adequate budget allocation for facilities, infrastructure, and SID procurement, as well as strong participation from community organizations and NGOs that actively contribute to system utilization. However, inhibiting factors persist, including ineffective website implementation, limited technological skills among village staff due to insufficient training, and frequent system errors caused by overlapping electronic service platforms. **Novelty:** This research contributes by applying the balanced e-government scorecard to evaluate SID at the village level, offering new insights into how financial resources and community participation can strengthen implementation, while highlighting the urgent need for capacity building and system integration to ensure more effective and transparent village governance.

INTRODUCTION

Law Number 6 of 2014 explains the village as a community legal unit with certain territorial boundaries, which has the authority to regulate and handle the affairs and interests of the local government. Villages function as an integral part of the central government's management [1]. A village is a mapping of the administrative area in Indonesia and is under sub-division led by a village head. In line with the development of information technology today, information technology systems have important functions for government agencies or the private sector. Plays an important role in determining the success of an organization [2]. Because of this, as a village apparatus and a way to utilize information data in helping village community services and resource management.

Village Information System (SID) is an application that can help villages to be more effective and efficient in managing advanced and independent villages. Village information systems can also make government services more accessible to the general public [3]. This Information System is based on technology that uses computers and websites so that the village community can easily access it [4]. Article 86 paragraph (2) and paragraph (5) of the Village Law require the government and local governments to build a Village Information System (SID), which will be managed by the village government to make it easier for village communities and other interested parties to

access it [5]. The use of the Village Information System (SID) will improve the quality of village data.

However, in fact, it proves that not all villages are able to implement SID properly. One of them is Kureksari Village, Waru District, Sidoarjo Regency, which is the place for this research. Researchers found that the SID in this village is still not functioning optimally. This can be seen from the lack of use of village websites and low citizen participation in utilizing digital services. Therefore, it is very important to thoroughly assess how the implementation of SID in these villages is taking place, as well as identify the factors that support and hinder it.

The selection of a location for the research in Kureksari Village was carried out based on the results of initial observations, which showed that there was a gap between the existing system and the level of effectiveness of its use. Kureksari Village already has [an official website https://kureksari-waru.desa.id](https://kureksari-waru.desa.id), but the use of the site to support public services is still very lacking. This situation raises basic questions about the extent of the readiness of human resources, infrastructure, and local policies in supporting the implementation of SID. This is a strong basis for researchers to further investigate the application of E-Government through the SID at the village level through this case study[6].

The results of this study stated that the implementation of the SID had a positive impact; there were several obstacles to SID, whose implementation was still not effective, including a lack of training, frequent errors in the system, and a lack of transparency. Various previous studies by explained the SID. First, previous research conducted by [7] with the title Village Information System in Improving Web-Based Public Services. This research uses a qualitative research method. The result of this study is a village information system with system that has been processed by a computer. So this system is able to show report information and administrative services more efficiently, thus the village apparatus is able to easily serve the community. Then there are similarities in the research methods used by researchers who are qualitative. Meanwhile, the difference between the previous research and the research carried out by the researcher is that some of the previous research discussed the improvement of the engineering stages on the Village Information System (SID) website, while the research that the researcher conducted was to find out whether the application of the SID was optimal or not.

Second, previous research conducted by [8] with the title Analysis of the Implementation of Integrated Village Information Systems in Pangandaran Regency. This study utilizes a qualitative descriptive type research method. The result of this study is that in the village, the SID in Pangandaran Regency is still not fully integrated because the village website is not dominated by desa.id. thus, the output of the SID is not yet open source. Then there are similarities in the research methods used are qualitative. Meanwhile, the difference between the previous research and the research carried out by the researcher is that the previous research collected data on all villages in Pangandaran

Regency, while the research that the researcher conducted was to directly choose one of the villages in Sidoarjo Regency.

Third, previous research conducted by [9] with the title Village Information System Management in Pasir Mukti Village, Cineam District, Tasikmalaya Regency. This research utilizes qualitative research methods. The result of this study is that the management of the Village Information System in Pasirmukti Village is less than optimal, as can be seen from websites that are not updated regularly, for example, village profiles, population statistics, village assets, and so on. Furthermore, there are similarities in the research methods used as qualitative descriptive methods. Meanwhile, the difference in previous research is the location of the research conducted by the researcher.

Kureksari Village, Waru District, Sidoarjo Regency, as the object of this research, is based on the problems raised by this author at the Kureksari Village Hall Office, which is a village with still unstable optimization of the application of information system technology. This makes the village community experience difficulties with service data. What makes this village information system lack transparency and accountability in using the SID. here is an attachment of the application of the Kureksari village Innovation System website, Waru District, Sidoarjo regency, which is still not stable in optimizing.

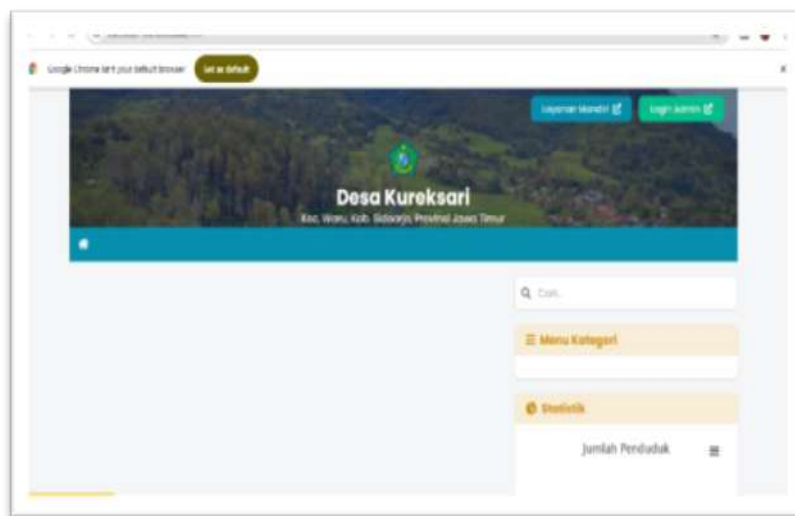


Figure 1. Village Information System Display (2025)
Source 1 :<https://kureksari-waru.desa.id/first> (2025)

Because of this, the results of the data that are to be accessed in the SID have failed to take advantage of the use of the SID. There is still a lack of community transparency in village government. Remembering that the community is one of the main keys that is very important in the implementation of government electronics.

E-Government is a new method for governments to engage information technology and communicate with the public and other interested parties. The research uses technology, especially the internet, in improving the quality of service [10]. The basis of the core idea is the use of information technology to strengthen the relationship

between the government and several subjects, including the community, business actors, and other institutions [11]. Based on the opinion of Indrajit (2002), E-Government is a new system between the government and other groups with interests that will involve the use of technology, namely the internet. In order to improve, develop efficiency and quality for the services carried out, including the implementation of the SID., where Indrajit (2005:46) states what is termed the *balanced E-Government Scorecard* to infect the ability of governments that utilize E-Government including 1) Benefits 2) Efficiency 3) Participation 4) Transparency 5) Change Management[12].

Therefore, according to the problems found in the management of the Kureksari Village government above. The researcher is related to reviewing the application of the SID in public services in the government of Kureksari Village, Waru District, Sidoarjo Regency, to find out the services in the SID, the benefits of information disclosure, and other factors in the implementation of the village information system.

RESEARCH METHOD

This research utilizes a qualitative type of research. aims to analyze the application of the SID in public services in the Kureksari Village Government, Waru District, Sidoarjo Regency. According to [13] this qualitative research utilizes a descriptive method, which is in the form of written words over the words of various individuals or observed behaviors. In obtaining data and results from conclusions contained in the Kureksari village office in relation to the implementation of the SID in public services in the village government. In this study, the researcher used the types and sources of data used for this research there are primary data and secondary data, namely primary data obtained directly through interviews with important informants, namely the Secretary of Kureksari Village, and observations about the implementation of the SID Village Information System. However, for Secondary Data, it was obtained from several sources of supporting documents, such as documentation of activities, website displays, and relevant laws (such as Sidoarjo Regent Regulation Number 98 of 2022), as well as the results of previous studies that strengthened the theoretical and contextual studies in this study.

The technique of determining informants is used to obtain information from people who understand the research. For this study, we used *purposive sampling*, which is a technique for deliberately selecting informants according to special criteria related to the purpose of the research. The researcher selected informants who had understanding, experience, and direct involvement in the implementation of the SID in Kureksari Village. The informant in this study is Mr. Abdul Rohim, the secretary of Kureksari village, who is directly responsible for the management and implementation of the SID. He was selected because he has good knowledge of policies, challenges, and the implementation of SID Engineering as a whole in the context of village government. For data collection, the data collection process [14] Researcher utilizes 3 data collection techniques, including interviews, observations, and documentation. Interviews were carried out at the

Kureksari Village Office through the village secretary, while observations were carried out by going directly to the location to find out how to implement E-government through the SID, and documentation was done by recording voices and recording data. The data analysis technique in this study utilizes the Miles and Huberman analysis techniques. Based on the analysis techniques of the two experts, there are 3 processes, namely data reduction that is simplifying or summarizing the main information in the data that has been collected, data presentation is in the nature of collecting information so that information or data can be presented and understood more easily and drawing conclusions, namely to draw meaning or conclusions from the data obtained in the interview process at the Kureksari village office.

RESULTS AND DISCUSSION

Results

In this stage, the government issued Law Number 6 of 2014 concerning the use of information technology and electronic-based government, in Article 86, it explains that every village must have an SID. Although this law only appeared in 2014, in Sidoarjo Regency, its implementation began to appear in 2022, and there are still villages that have not implemented the SID. In this case, the function of the local government is very significant in carrying out supervision of the village so that the control of the SID runs appropriately and structurally. In the implementation of the Kureksari SID, it is still unstable because in Kureksari village, before that, there were still many village activities that made Kureksari village still not focus on the SID. So, for administrative services starting from domicile certificates, marriage certificates, and other administrative services have been automatically entered into the Sipraja system. For the implementation of the Information System website

This village (SID) is divided into 3 of them: a) Hardware: this system can be implemented through a computer or laptop b) Software: this website system is run using chrome or goggles c) Human resources: in the implementation of this system, an operator or user is needed who can operate a computer to run the SID that has been created. To enter the old E-government in Kureksari Village, it can be done through <https://kureksari-waru.desa.id/first>.

Discussion

The SID has existed since 2022 due to government regulations. This SID is a task for the village secretary or the Kureksari village apparatus. In 2022, the Kureksari village secretary only learned that 2022 there were changes related to the information system. So that the Kureksari village secretary still cannot be maximized in the SID. So, from the district government related to the portal last year, it has been fulfilled, but due to a change in the system in 2022, all the data in the system was lost. In the SID, there is a village monograph, the number of inhabitants, and the village profile, including the location of the geographical area. Since SID services started in 2022 until now, there are still some people who do not know about the SID.

1. Benefit

Indrajit (2005) stated that the benefits of E-Government are assessed based on the level of accessibility and acceptance of public services by the community. Benefits relate to the quality and quality of services delivered and how the community can benefit from those services [12]. In the use of this technology as a direction in the governance of the Kureksari Village government, it is increasingly evenly distributed in increasing the importance of information disclosure in a very precise and fast manner in services to the people of Kureksari Village. However, in the implementation of the SID, public services in the Kureksari Village government still cannot be used by the people of Kureksari Village. Because the SID is still unstable. So, in this Kureksari Village, filing services are backed up by Sipraja. So the people of Kureksari Village carry out the needs of filing services directly in Sipraja.



Figure 2 Kureksari Village SID Website which contains service menus such as village profiles, population data, and other information (2025)

Source 2 : <https://kureksari-waru.desa.id/first> (2025)

In this aspect, it is to improve the implementation of the Village Information System website so that it can be stabilized and so that it can be useful for the community in the village of Kureksari and the constitution. In the implementation of the SID, the service has various features, including: Village profile, population data, village budget report data, and others. If the SID is implemented and managed properly by the Kureksari Village government in Waru District, Sidoarjo Regency, this can be an example for remote villages throughout Indonesia. Basically, the public needs information or requests through this system. And it should be noted that because the existing benefits and optimizations are still not implemented appropriately or are not stable in the Kureksari Village government, it can be seen that the community cannot access the SID in information and services through the Village Information System website which is related to the quality of the information system that is built and run together according to the legal basis.

2. Efficiency

Related to existing issues, technology has the ability to speed up the process and improve the quality of public services. In fact, the support from the management and the village government to the Communication and Information Service is still not optimal, with an impact on unresolved problems in the SID and limited resources, so that this public service cannot be considered efficient. Ranchman & Noviyanto (2017) revealed that without adequate infrastructure, technology actually increases the workload [10]. Therefore, technical support and training from the communication and informatics office are needed for the system to function properly. In this Village Information System (SID), there is also a problem with the server, which causes the service in the SID to be slow. To significantly increase efficiency in some information inside the Kureksari Village Office, even outside the office. The government must exchange information or coordinate to emphasize the importance of using technology in Kureksari Village.

Table 1. Visitor statistics (2025)

Information	Number of visitor statistics
Today 15 July 2025	6 Visitors
Yesterday 14 July 2025	21 visitors
The number of visitors per year ±	3,662 visitors

Source 3 : <https://kureksari-waru.desa.id/first> (2025)

Based on visitor information on the SID, it can be seen that the number of people who visit is still low. On July 14, 2025, there were only 21 visitors, while on July 15, 2025, there were 6 visitors. Overall, the number of visitors per year only reached 3,662 visitors. This situation shows that the use of SID by the community is still not optimal, both in terms of accessibility and understanding of its functions and benefits. In this component, whether it needs to be observed or seriously considered, most importantly, the involvement between all parties related to problems or obstacles in technical implementation is not just strategic. Not only the village officials of Kureksari, but also several other parties. In general, it is every village government system that is involved in the implementation of the SID in public services in order to be able to maximize efficiency in implementing the SID service website. Through the availability of appropriate information, both Information Systems and Informatics are very important. Because it is able to support the handling of obstacles contained in the server or SID, and the process of using this, so that it can be accessed by the village community.

3. Participation

Community participation in Kureksari Village is so important. Indrajit (2005) said that citizen participation in the service process strengthens democracy at the local level[12]. Because it takes part in every implementation of the village government to realize democracy, where the people of Kureksari Village provide opportunities for opinions related to health, such as posyandu activities. This is where the people of

Kureksari Village know when they are involved or participate in Kureksari Village government activities or programs. The people of Kureksari Village also enjoy the processes and results, and the community is also able to evaluate the performance of the Kureksari Village government officials. The result is that communication between community organizations and the Kureksari Village government has been coordinated or takes place appropriately. However, the involvement of residents in accessing and providing input to SID is still minimal. Syaharuddin & Ibrahim (2017) emphasized that digital education and continuous community participation are very important [5].

It is important to remember that active participation in all components of the community for the management of village governance is crucial. The existence of civil society organizations, including Non-Governmental Organizations, plays a vital role in providing support and conveying various problems that arise in the SID to the village government. This applies even though the SID has been upgraded to focus more on the needs of the residents of Kureksari Village in terms of information transparency. In other words, the community is expected to be able to convey various suggestions and opinions related to important issues that need to be of concern to the village government, especially those related to the implementation of the SID to improve public services in Kureksari Village, Waru District, Sidoarjo Regency. This is the main consideration before making decisions related to public issues by utilizing contributions from various elements of society and existing organizations.

4. Transparency

Transparency is one of the important factors in the successful implementation of E-government. According to Indrajit (2005), transparency in the context of E-Government means providing clear and appropriate access to the public to information, decisions, and administrative processes implemented by the government[12]. Regarding developing transparency in the SID, it is able to easily support the village government in terms of presenting information widely and openly to the people of Kureksari Village. The most important application of village information system services is in the form of village profile information, vision and mission, village structure, institutions, and information in general, in realizing village government related to transparency for the village community. According to the results of this research, which has been carried out, some communities still do not know and lack information disclosure in the implementation of the SID. The presentation of the SID in Kureksari Village is still not detailed and is still in the village profile information cycle[15]. The Kureksari Village Apparatus stated that the services that can be enjoyed or utilized by the community have been carried out with applications in the district belonging to Dukcapil. However, regarding facilities, including facilities and infrastructure, they have provided information related to the budget or development plan. The Kureksari Village Government has shown the information that has been displayed in front of the Village Office in Kureksari.



Figure 3. Interview with the village secretary (2025)

Source 4 : wawamcara 6 January 2025

Through an interview, the village secretary, Mr. Abdul Rohim, explained the openness with the community regarding the implementation of the Village Information System (SID). In this component, it is important for the village government to have more open information to the village community. This involvement in the community can have positive implications for transparency in the eradication of KKN actions, because if there is low transparency, it can have an impact on the abuse of power. Then, the Kureksari Village government to communicate more with each other at the communication and informatics office regarding the implementation of the SID in the village. So that mainly community participation is active and critical to supervise the village government by expressing opinions in public orally and in writing, not necessarily anarchic. Thus, without this transparency, public participation will not be effective. Such participation requires support from stakeholders to be implemented. Transparency is not limited to showing information to the community, but also as an effort to increase community involvement in understanding village government. There is a need for more active involvement of the village government in all aspects of staff performance to the community, not only in terms of transparency, but also in terms of the responsibility of the village government to the residents.

5. Change Management

The application of technology in the public sector requires managing planned changes. Indrajit (2005) recommends training, assessment, and technological adjustment as elements of the change process. Regarding the application of information technology, it essentially shows an opportunity for the village government to implement facilities to provide ease of service processes for the use of the SID to introduce the potential of the village and interactive relationships between the people of Kureksari Village and the village government. In order for the SID to be utilized, it is necessary to have a stage of authority that is able to ensure that the quality of the system implemented is in line with needs and can be accounted for by operators or administrators using the SID. Therefore, the researcher found that in controlling the SID in public services, it experienced a lack

of training provided by the Communication and Information Service and still faced challenges related to limited human resources. However, the SID has received support from the government through its policies. It is unfortunate that the participation of employees in this government program to be given is still limited. And also Kureksari Village application system, village employees have difficulty conveying it due to the many systems carried out by the village.



Figure 4. Interview with Kureksari Village apparatus regarding the implementation of SID in facing system transformation towards digitization of public services

Changes towards digitalization through the implementation of SID are part of change management in village government. In this aspect, the implementation of the E-Government SID takes place in a dynamic way, which should be closely monitored for supervision. Because the involvement of Kureksari Village Office employees is a component part of the implementation of this activity, they have sufficient knowledge or skills and high enthusiasm. Sufficient training is needed in the development and optimization of the SID, the involvement of Kureksari Village employees is absolute or something that is undoubted because of how good the quality of the application system is run, there will be no benefit without their participation and also the local government should prefer one of the systems that are prioritized for services so that there are not too many systems used. So that village employees and the community are not confused in carrying out services. In the SID in Kureksari Village, the person in charge is the village secretary. From the results of the interviews, it can be seen that there are still obstacles in the aspect of Human Resources (HR), especially related to technical skills, limited training, and low support from policies. Therefore, this transformation process requires a continuous commitment, as well as continuous training for all village apparatus, so that the system can take place appropriately and sustainably.

The supporting factors and inhibiting factors in the implementation of the SID in public services in Kureksari Village, Waru District, Sidoarjo Regency are as follows:

Supporting factors for the implementation of SID.

1. The budget or costs allocated by the Kureksari Village government, Waru District, are sufficient to meet the needs related to facilities, facilities and infrastructure, maintenance, and procurement in the implementation of SID for this service.
2. Community involvement or efficiency of NGOs (Non-Governmental Organizations) who consistently provide suggestions or recommendations to the Kureksari Village government in Waru District. Therefore, communication between the Kureksari community and the village government has taken place appropriately and directly.

Factors inhibiting the implementation of SID.

1. The implementation of VSID E-government in public services in the Kureksari Village government, Waru District, Sidoarjo Regency, is clear in its legal basis, namely: Sidoarjo Regent Regulation Number 98 of 2022 regulates Guidelines for the Preparation of the 2023 Village Revenue and Expenditure Budget. The Village Secretary is designated as the Person in Charge of the SID. The website application already exists, but the implementation is still not effective.
2. Lack of training provided by the Sidoarjo Communication and Information Service. Which was carried out a year ago. Which is a direct obstacle to the implementation of the SID.
3. The website application system that often erupts due to the large number of website applications in Kureksari Village.

CONCLUSION

Fundamental Finding : This study concludes that the implementation of the Village Information System (SID) in Kureksari Village has not yet been optimal, as although budget support, infrastructure, and active community participation serve as strong enablers, the system continues to face obstacles such as ineffective website operation, limited technological skills among village staff, and frequent technical errors due to overlapping electronic service platforms. **Implication :** These findings imply that the success of e-Government at the village level depends not only on financial and infrastructural readiness but also on the effectiveness of capacity building and system integration, ensuring that digital services can truly enhance transparency and efficiency in public administration. **Limitation :** The limitation of this study lies in its narrow focus on a single village and reliance on qualitative data, which restricts the generalizability of results and does not fully capture citizen perspectives on service quality. **Future Research :** Further studies should adopt a comparative and mixed-methods approach across multiple villages, evaluate user satisfaction and digital literacy impacts, and explore strategies for consolidating service platforms to reduce system fragmentation and improve governance outcomes.

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