



## **ANALYSIS OF VILLAGE ADMINISTRATIVE INFORMATION SYSTEM MODELS TO IMPROVE GOOD PUBLIC GOVERNANCE**

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### **Abstract**

This study aims to analyze and design the modeling of the village administration information system. This design aims to improve the quality of village governance because the village government is the foremost representative in the state order that is very close to people's lives. The research method uses Research and Development, while the analysis model uses the Business Process Management System (BPMS) framework. The research stage starts with problem analysis, then describes the business process for submitting village documents, next is process modeling, and finally, conclusion analysis. The study results indicate that the application of the village administration information system described in this research model is proven to facilitate the administrative process and village governance and improve government and community institutions' control and supervision functions. These positive impacts have implications for improving the practice of Good Public Governance, including democracy, transparency, accountability, legal culture, and fairness and equality.

**Keywords:** Village administration information system, Business Process Management System, Village government, Good Public Governance.

## **BACKGROUND**

The village government is one of the government units in the social order of society in Indonesia. The village government regulates people's lives, including human empowerment, management of village resources, and the governance of the administration of the community. For this reason, every village organization has a set of binding regulations to ensure the achievement of ideal conditions in running the village government (Nugroho, 2018). Meanwhile, the current era demands the application of technology in every human activity in order to continue to maintain its existence (Pratama et al., 2021). Likewise, in village government, the traditional pattern of government development has gradually shifted to a modern pattern of government. One way is to apply e-government culture to the village government. The concept of e-government is a mix of the use of information technology in the local to the central government. Especially in village government, this concept can be applied in the context of digitizing the village administration governance process to manage village resources (Watrianthos et al., 2019).

Good governance of government organizations must pay attention to the basic principles of organizational governance contained in the principles of Good Public Governance (GPG). Good Public Governance (GPG) is needed to achieve the national goal of protecting the entire Indonesian nation (Saksono & Manoby, 2021). This entire homeland of Indonesia promotes public welfare, educates the nation's life, and maintains world order based on state sovereignty, eternal peace, and social justice. So a healthy and highly competitive country must be realized that can create added value on an ongoing basis through responsible resource management so that the country's credibility is built nationally and internationally.

Five principles must be considered to realize Good Public Governance (GPG) in government institutions (Ambarwati et al., 2019): The first is the principle of democracy, which is a principle whereby the government must organize participatory management, acknowledge differences of opinion and realize the public interest. Next is the principle of transparency or freezing. The principle of transparency Transparency contains elements of disclosure and the provision of adequate and easily accessible information to the public. The third principle is the principle of Accountability. Accountability contains clarity of organizational functions and how to account for them. Accountability is needed so that every

state institution and administration carries out its duties responsibly. The following principle is legal culture; the principle of legal culture contains elements of strict law enforcement indiscriminately and obedience to the law by the community based on awareness.

Moreover, the last principle is the principle of fairness and equality. Fairness and equality contain elements of justice and honesty so that in their implementation, it can be realized that equal treatment of stakeholders in a responsible manner can be realized. The principle of equality and justice is equality in treatment and public services. The government must behave and behave reasonably in providing services (Jamal et al., 2020).

In this study, Wringinsongo Village, which is the object of research, is one of the villages in Malang Regency. Wringinsongo village has two hamlets with thousands of residents in them. This village has good natural resource potential as the leading producer of vegetable and fruit commodities. In addition, Wringinsongo village also has several tourist destinations that are well known to the public. This makes Wringinsongo village one of the villages with a reasonable growth rate in Malang Regency. Unfortunately, with the potential that exists, the village of Wringinsongo still runs the government with a traditional model. This is indicated by the absence of a village administration system that can assist the citizens' bureaucratic process. Whereas in a reasonably wide area and a considerable number of residents, the village government should be able to optimize information technology to support village governance. Therefore, based on the explanation above, this research will design an administrative information system model that can apply to Wringinsongo village. The preparation of this model uses a Business Process Management System framework to improve the modeling analysis results. This village administration system model should increase the effectiveness and efficiency of the bureaucratic process and village governance (Prasetyo & Dhaniawaty, 2020). With the use of the village administration information system, the process of managing letters by residents and controlling village administration by village officials can be done better (Prajanto & Dian Pratiwi, 2019). This can indicate by the simplification of the process, the reduction of time, and the improvement of the results of village governance or Good Public Governance (GPG). This research expects to provide analytical results that can be useful for the development of the village government.

## **THEORETICAL BASIS**

### **Village Administration Information System**

The information system is a collection of interrelated components to process the data entered into the system to produce output as helpful information for stakeholders (Shofia &

Anggoro, 2020). A system within an organization that meets the daily transaction processing needs supports an organization's operations, managerial, and strategic activities. It provides certain outside parties with the necessary reports. Meanwhile, the village administration information system is an information system that was built specifically to carry out administrative processing in the village government. This includes several functions, such as inputting community and village data, controlling correspondence bureaucracy, citizen complaints, and access to information, to monitoring village governance (Dhaniawaty, 2020).

### **Business Process Management System**

While the Business Process Management System (BPMS) is a framework that provides optimal control over the company's business processes, this framework can be applied to provide assessment and evaluation in order to maximize the level of effectiveness and efficiency of the company (Reijers, 2021). BPMS has many benefits for companies and management in particular. Especially in the current era of increasingly fierce competition, companies must be adaptive in managing their organizations. For government organizations, BPMS modeling will also help conduct an in-depth analysis of the implementation of a new system of governance. BPMS has good strategic measuring and evaluation tools (Kir & Erdogan, 2021).

### ***Good Public Governance (GPG)***

Good Public Governance (GPG) is a system or code of conduct related to the management of authority by state administrators in carrying out their duties in a responsible and accountable manner (Jamal et al., 2020). GPG regulates the pattern of relations between state administrators and the community and between state administrators and state institutions as well as between state institutions. The implementation of GPG is critical through enforcement of compliance with the law so that good governance can be implemented (Ambarwati et al., 2019). Five principles must be adhered to in realizing Good Public Governance, namely the principle of democracy, the principle of transparency, the principle of accountability, the principle of legal culture, and the principle of fairness and equality.

## **RESEARCH METHODS**

This research is a Research And Development (R&D) research. R&D research is carried out by analyzing a problem and then making a design for solving that problem (Sugiyono 2018). R&D research is used when conducting research that aims to create a new product and test the success of the product. This type of research is beneficial to be applied in the analysis and implementation of systems such as this research, with data collection

methods using open questionnaires and in-depth interviews. An open questionnaire was conducted using a google form to obtain information and data on research needs.

Meanwhile, in-depth interviews were conducted in person (offline) or using online application tools to obtain in-depth information on research needs. The analytical tool in this study uses a Business Process Management framework. The research phase begins with modeling the current business process (as-is model) using Business Process Management Notation (BPMN). The second stage is to analyze the problem and formulate a solution using the Business Process Management System framework. Moreover, finally, designing a proposed new business process model (to-be model) is expected to improve the company's business processes.

## **RESULTS AND DISCUSSION**

### **Analysis of Administrative Information System Modeling in Wringinsongo Village**

In this study, the design of the administrative information system in Wringinsongo Village was focused on improving governance and bureaucratic processes from official village documents. The village letter document is essential and is needed by the residents. So far, requests for village documents or letters have to be done manually with a lengthy bureaucratic process. The community must come to the village office themselves, submit the files, then wait for the process of making and signing for a particular time. In this condition, the community must regularly check by coming directly to the village hall to ensure that the bureaucracy of the submitted letter has been running.

In terms of village officials, managing letters and manual documents also has many weaknesses. Village officials must manually request village letters or documents following residents' submissions. Furthermore, the bureaucratic process is carried out manually with periodic checks at each stage. The data collection and archiving process are also carried out personally with physical documents and a manual list of documents in the register book. This process carries a high risk of misinformation and even loss of documents.

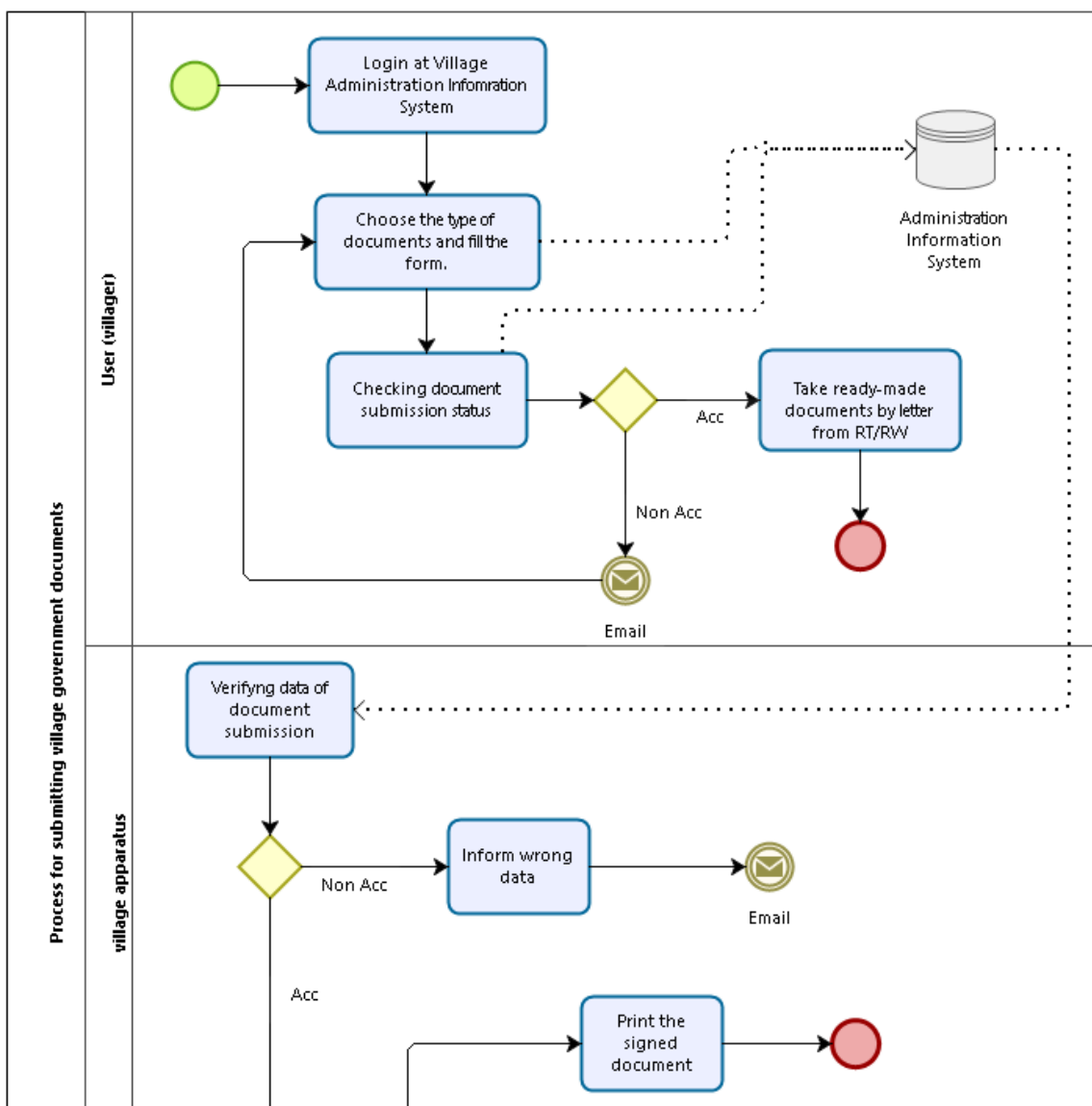
For this reason, a village administration information system is designed that contains functions for managing village administration. The primary role of this system will be used as a facility for submitting letters, checking bureaucratic processes to completing the required documents. Meanwhile, for village officials, this system will be a means of facilitating village governance because the system will contain a citizen database, letter submission data, automatic letter printing processes, and automated bureaucratic processes with the system until the completion of the document submission process. All of these activities will be easier

and faster because they use a shared information system that has been integrated. The process of submitting village documents and letters using the village administration information system is modeled in Figure 1.

In the first process, residents as users log into the village administration information system. After successfully logging in, the user can select the type of letter needed and enter the required data. Furthermore, the user can check the status of the letter submitted on the system. Second, the village apparatus verifies the request for letter submission. If the data is appropriate, the request for a letter is given to the village head for approval.

Meanwhile, if the data does not match, the village apparatus will verify the system's error, and the user will receive an error notification via email. The next stage is the request for submitting an appropriate letter and then signed by the village head, and the village apparatus carry out the printing process. Moreover, lastly, the letter submission that has been acc can be taken to the village office by the user by bringing a cover letter from the RT/RW.

**Figure 1. Business Model of Village Document Submission Process with Village Administration Information System**



Sumber : Data diolah (2022)

The process of submitting village documents and letters using the administrative information system, as described in the model, has many advantages over the manual process. First, in terms of activities, the use of the village administration information system simplifies bureaucratic activities carried out by residents to obtain village documents. Residents no longer have to do periodic checks by coming directly to the village office but see the submission status on the system, which is automatically updated. Second, in terms of processing time, the new administration information system simplifies documents from the beginning until the documents are ready to be brought by residents.

The second advantages in terms of activity and time above indicate an improvement in the document submission process in the village. Improvement of this process will increase the quality of village governance. This is because by using the village administration information system, the government will find it easier to control and monitor administrative activities in its entity (Harnengsih et al., 2018; Prasetyo & Dhaniawaty, 2020). Increasing the quality of administrative governance will also improve the quality of village services comprehensively for the community.

### **Village Administration Information System to Improve Good Public Governance (GPG) Practices.**

The implementation of Good Public Governance is an essential thing for every government institution to have. This is because GPG measures the extent to which government agencies can carry out their duties and responsibilities properly (Junaedi, 2022). To achieve these indicators, a village administration information system model is designed to improve general public services and village governance. The village administration

information system designed in this study has at least an impact on the five principles that exist in Good Public Governance, including democracy, transparency, accountability, legal culture, fairness, and equality.

The first principle is democracy. The principle of democracy requires an equal right to participation of every citizen. In this case, every person or community member, men and women, have the same voting rights in the decision-making process, either directly or through representative institutions, following their respective interests and aspirations (Ambarwati et al., 2019). Everyone has the right to express a voice in formulating public policies, both directly and indirectly. The application of the administrative information system model in Wringinsongo Village can be a means of achieving democratic principles in the administration of government. This is based on several indicators, such as increasing respect for others and equal rights of citizens in aspirations to the rejection of discrimination.

The increase in respect for others is seen in the village information system, which allows all residents to access the system and run the bureaucracy independently. In the conventional process of submitting documents in the village, it is usually vulnerable to discrimination against particular residents close to village officials. So it is not uncommon for cases of ease of document management to occur in certain groups and obstacles to document management in other groups. However, with the administrative information system, this risk can be minimized because the bureaucratic process is carried out automatically through the system so that, in this case, every villager has the same position to access the system without intimidation or discrimination from any party (Ainur Rohmah & Rachmawati, 2019). In addition, the following indicator of democracy is also seen from the appreciation of the opinions of others. In the designed village information system, comments and suggestions fields can be filled in by each user, village resident, and village official. In this case, citizens can express their aspirations through a suggestion box directly sent to village officials and heads. This simplifies the communication process and ensures that the government can accommodate every citizen's voice.

The second principle is the principle of transparency. The use of the administrative information system in Wringinsongo village also shows an increase in the transparency of village management. Transparency is needed so that supervision by the public and the business world on the administration of the state can be carried out objectively. For this reason, it is necessary to provide information through an information system and easily accessible documentation regarding the pattern of formulation and formulation of laws and regulations and public policies and their implementation by each state institution. Through an



administrative information system, the entire community can control and supervise the village governance process openly (Rakhman, 2019).

Furthermore, the village administration information system can also improve accountability. In this case, the village administration information system is an accurate way of obtaining information about village governance. The implementation of the village information system requires all village officials to be able to report on performance developments regularly. The village information system is also a means for village officials to inform village management reports to the community (Jamal et al., 2020; Rakhman, 2019). This shows that the achievement of accountability indicators is indicated by the precise role of each village apparatus, clear expectations and performance, credible reporting, and valuable information.

The fourth principle is legal culture. As previously described, the village administration information system provides greater transparency and oversight space than the conventional process. In this case, it also impacts increasing the legal culture in the village government. The bureaucratic process often used through gratuities or other illegal activities can be minimized because every citizen no longer has to come to the village office and face subjectivity discrimination by village officials. Likewise, for village officials, the administrative control process from residents is also more accessible and accurate (Prasetyo & Dhaniawaty, 2020). Data falsification becomes easier to detect so that law enforcement will be more controlled.

Finally, the implementation of the village administration information system also has an impact on increasing the principles of equality and fairness. An open process with free access to the system gives every individual the same and equal rights to get services from village officials (Ainur Rohmah & Rachmawati, 2019). The village administration information system provides the broadest possible access to services to the community and equitable services to the community regardless of ethnic background, race, religion, gender, ability, or socio-economic status. The increase in these five principles in the governance of the Wringinsongo Village government shows that the application of the administrative information system model can improve the Good Public Governance index. This will be beneficial for increasing public and public trust in the government and creating a comfortable and ideal environment for people's lives.

### **Cost and Benefit Analysis**

As described in the previous section, the design of an administrative information system provides several benefits, especially in increasing the effectiveness and efficiency of

the village administration process. The analysis of Good Public Governance explains some of the benefits of implementing the system and, starting from increasing the values of democracy and transparency, increasing accountability, fulfilling justice for the community to being able to improve the quality of village management as a whole. However, in implementing this system, village officials must also make costs and sacrifices to convert conventional processes into digital ones. There are at least three costs that need to be prepared by village officials in the process of implementing the system.

The first is in terms of network and software. To make changes to the digitization process, village officials must first have a design for the system to be built, especially in applying village administration information systems. Making the system will involve many factors ranging from service needs, public perception, user interface, system functions, and many other considerations to ensure that the administrative system can be designed properly (Rakhman, 2019). After the design process is complete, the following process is to build application systems and web according to needs. At this stage, the system development process will require a sizable capital investment for the programming process, application design to prototypes, and the system is ready to run. The final process is trial and evaluation to ensure that the village administration information system can be used properly. Apart from software preparation, village officials must also prepare special costs for network providers. The administrative information system is expected to help the community access village services wherever and whenever they need a supportive internet network (Dhaniawaty, 2020).

Physical facilities and hardware are the second cost or sacrifice that needs to be considered. In supporting the use of applications or systems, village officials must ensure adequate facilities, especially in terms of hardware. In Wringinsongo Village, government officials must provide electronic goods procurement policies supporting digital-based services, such as computers. The procurement of this device must also consider certain specifications to accommodate the use of the newly designed and applied information system.

The last part is to prepare human resources. Implementing digitalization systems and processes in village services requires readiness for village officials and the community to use them. Village officials must change conventional work behavior patterns to digital (Ainur Rohmah & Rachmawati, 2019). This is because many processes and services previously done manually have now turned into electronic ones. Meanwhile, from the community point of view, service through an administrative information system is also new. The community

needs a good explanation regarding how to access digital services, the process for each service submission, and technical matters that can occur.

Preparing human resources is a significant point in considering the costs and sacrifices required because the village must provide particular training time for using the system for village officials. Dissemination of digital services for the community. Moreover, intensive assistance in switching from conventional services to digital services. Apart from that, there is also a high cost or sacrifice that accompanies it, namely in terms of time. Switching from conventional to digital systems requires sufficient time to reach 100%. Within this period, there will be many potential problems that can occur and have an impact on the emergence of other sacrifices. Even service failures can occur when the synchronization of changes from conventional to digital service models cannot be maximized (Kim et al., 2020).

In the end, consideration of the value of the benefits obtained and the sacrifices required must be carried out carefully. This ensures that the process of digitizing village services by utilizing administrative information systems can be optimal. The focus of calculations in policy making in Wringinsongo Village is not only on the expectation of the benefits of implementation in the future but also on assessing the impact of the sacrifices incurred.

## **CONCLUSION**

This study provides an analysis of the practice of village administration governance in Wringinsongo Village. Problems that arise in village governance have the potential to be the cause of poor governance processes in the village. Some of the risks that can arise are loss of essential data and documents, slow village services to low levels of control. Therefore, in this study, the village document request process was modeled using the village administration information system. The research method uses the Research & Development method, where interviews and questionnaires collect data. The results showed that the use of village administration information systems could simplify bureaucratic processes, accelerating processing times to increase the effectiveness and efficiency of village administration services. The village administration information system helps the village government improve good public governance. This is marked by an increase in the quality of democratic principles, transparency, accountability, legal culture, fairness, and equality in Wringinsongo village governance.

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