



## Implementation of E-Voting in the Village Head Election (Pilkades) Selotinatah, Ngariboyo District, Magetan Regency

Desi Rachmawati, Asep Nurjaman, Iradhad Taqwa Sihidi

Department of Government Studies, Faculty of Social and Political Sciences, University of Muhammadiyah Malang, 65514, Indonesia

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### CORRESPONDENCE

Name: Iradhad Taqwa Sihidi  
 E-mail: [iradhad@umm.ac.id](mailto:iradhad@umm.ac.id)

### A B S T R A C T

E-Voting is an innovation in the village-level electoral (Pilkades) process carried out simultaneously in Magetan Regency for the first time in 2019. The purpose of this study was to describe the implementation of E-Voting elections using the theory of Merilee S. Grindle and taking the locus in Selotinatah Village, Ngariboyo District, with rationalization as the village with the largest population and the most significant area. This research method uses descriptive qualitative research with primary and secondary sources. The results of this study indicate that the implementation of E-Voting in Selotinatah Village has been going well. It can be seen from the process that it is concluded that it is efficient and effective in accommodating the political participation of villagers. However, as a new process, socialization and technology quality constraints are again a problem. This is a classic problem in the implementation of public policies in Indonesia, so improvements are needed, especially in the bureaucracy's capacity and the security of the technology adopted.

### INTRODUCTION

Village Democracy has been explicitly and explicitly stated in Law Number 6 of 2014 concerning Village Government. This obligation is to include community participation in village development, one of which is through village head elections. With direct elections, the legitimacy of the village head and village government is stronger, so it is expected to accelerate the acceleration of welfare development.

The presence of village democracy is necessary for increasing the accessibility of public services, increasing community participation, democratically electing village government officials, and developing village autonomy (Tokan & Ola, 2020). Furthermore, village democracy gives birth to the government's rights and authority (authority). This authority is related to the orientation and process of using village government power which is required to be transparent, accountable and responsible for the sake of efficiency and effectiveness of public services and the provision of just and equitable welfare for the community.

According to the Village Law Number 6 of 2014 article 1, the village government is the main organizer of village affairs, consisting of the Village Head and his apparatus and the Village Consultative Body (BPD). The main task of the village head is to run the village government through strategic policies. Therefore, it is necessary to have a democratic means through direct elections as stated in the Regulation of the Minister of Home Affairs of the Republic of Indonesia Number 65 of 2017 concerning changes to the Ministry of Home Affairs No. 112 of 2014 concerning village head election (Pilkades) (Fatmawati & Suparto, 2020). This has been strengthened by the Constitutional Court Decree number 147/PUU-VII/2009, which further complements the legal basis for implementing the Pilkades in Indonesia. Meanwhile, in the context of village head

elections, the authority to form a village head election committee is the BPD (Nurzaen, 2019).

One of the breakthroughs made by the government is to improve the quality of the Pilkades implementation through the implementation of Electronic Voting (E-Voting). This departs from the fact that the development of information technology facilitates other alternatives for the community in political participation. The government then aggregates this phenomenon by implementing an electronic voting system (E-Voting). The motivation is cost savings and shortening the selection time (Hapsara et al., 2017b). E-Voting is proven to be efficient effective, and increase public participation in general elections. For example, what happened in the Pilkades of Pemalang Regency, Central Java in 2018, the E-Voting system was able to save the election budget. It was also followed by high community participation (Nurzaen, 2019). Therefore, it is natural that E-Voting has succeeded in positively impacting the system of implementing democracy, especially in villages.

E-Voting is defined as a method or model of voting and counting votes in general elections by utilizing electronic devices (Adeshina & Ojo, 2020). Specifically in Indonesia, E-Voting is implemented by simply using an Identity Card (KTP) and a fingerprint scanner by a computer. E-Voting is designed to make the general election process more effective and efficient (Lipmaa, 2014) and, of course, provide convenience and comfort for voters (Alvarez et al., 2018; AboSamra et al., 2017). E-Voting is an articulation of granting public voting rights using digital ballots (Tho & Ha, 2018). E-Voting is also considered to make people consistent in using their political rights in every election (Solvak & Vassil, 2018) because it is considered democratic so its legitimacy is strong (Thakur, 2014). E-Voting is also considered to provide certainty of fast election results and reduce human error (Crothers, 2015), which will further improve the quality of

electoral democracy. Therefore, in the future, E-Voting will be seen as a mere technological means and an agent of positive social and political reform (Hapsara et al., 2017a).

Its high usefulness has made several advanced democracies such as the United States of America (Johnson et al., 2017) and developing democracies like Nigeria (Hapsara et al., 2017a), Jordan (Aljarrah et al., 2016) use E-Voting. In New Zealand, E-Voting has increased political participation because this system has high public trust (Crothers, 2015).

However, E-Voting also has some disadvantages, especially about the level of security. E-Voting is designed to prevent fraud in elections, so it is essential to make a strict protocol in the form of a maximum level of security (Lipmaa, 2014). E-Voting must have high security and auditable system (Simpson & Storer, 2017). The goal is to maintain the security, confidentiality of voter data, and accuracy of election data (Sensuse et al., 2020).

E-Voting is suspected of only benefiting the state and the business sector in Kazakhstan. It is not trusted by civil society groups (Kassen, 2020); the result is abandoned. A similar phenomenon also occurred in Ireland, the Netherlands, Paraguay and Germany (Ali, 2014), when the accountability and accuracy of E-Voting is considered to be the main factor in the failure of E-Voting adoption. Therefore, several updates are needed so that E-Voting can provide more transparent and secure results (Tarasov & Tewari, 2017).

The success of E-Voting depends not only on the technological infrastructure used but also on the willingness of the community to accept the integration of new technologies that will change old habits in the manual (conventional) election process (Hapsara, 2014). Community participation is an essential instrument because as a user/subject of E-Voting. The resistance that occurs in adopting and adapting new habits through E-Voting will further complicate the implementation of E-Voting. Therefore, socialization is essential as happened in Jordan in implementing members of the legislature (Alomari, 2014). With massive socialization in this West Asian country, the community agrees and participates in elections using E-Voting.

Before there was an innovation in the electronic-based election system (E-Voting), Pilkades in Indonesia still used manual or conventional methods, namely using paper and then voting on the pictures and names of supported candidates. This model is prone to several problems, such as the number of invalid votes due to errors in voting and the long counting time due to tiers. This also ends up having a huge cost. This old model is also vulnerable to fraudulent practices such as what happened in Madusari Village, Siman District, Ponorogo Regency where BPD members suspect that ballots have been punched (Pebrianti, 2019).

In Magetan Regency for the first time holding village head elections using E-Voting in 2019. The implementation of E-Voting is stated in the Magetan Regent Regulation (Perbup) Number 34 of 2019 concerning Guidelines for the Election, Appointment and Dismissal of Village Heads (Magetan, 2019). The E-Voting election consists of four stages: the socialization stage, the nomination stage, the voting stage, and the last stage is the determination of the village head.

Magetan Regency officially held the E-Voting-based Village Head Election in 2019. This is the first activity based on the Magetan Regent Regulation (Perbup) Number 34 of 2019 concerning Guidelines for the Election, Appointment and

Dismissal of Village Heads (Magetan, 2019). In his explanation, the stages of E-Voting are divided into four stages starting from socialization, nomination, voting, and determination.

The Pilkades in Magetan Regency were held simultaneously in 184 villages but not all used the E-Voting mechanism. Of the 18 sub-districts, there are only 18 villages that use E-Voting as a pilot. One of the villages that implemented E-Voting was Selotinatah village which later became the main locus. Selotinatah Village and from 17 other areas were chosen with the consideration of having a large population.

This article will further explain the implementation of the E-Voting election in Selotinatah Village, Magang Regency. This village was chosen because it has the highest voters and the largest area in Magetan Regency. The theory of policy implementation from Merilee S. Grindle is used as an analytical tool to describe the reality of the implementation of E-Voting in Selotinatah Village.

In Indonesia, many researchers have carried out several academic researches on E-Voting in Pilkades. First, from the aspect of usability. (Fatmawati, 2019) see that the implementation of E-Voting in the Pilkades in Ulujami District, Pemalang Regency in 2018 has effectively increased the level of village community participation. (Haq et al., 2020), a study in the Pilkades of Boyolali district found that E-Voting has been incredibly effective in faster voter recapitulation. (Firmansyah & Yuwanto, 2019) shows that E-Voting for the village election of Ujunggede village has succeeded in accelerating the vote count, preventing double voter votes, and easing the committee's performance. (Franta & Pramudyasmono, 2020) shows that in the election of village heads in Surodadi, Tugumulyo district, Musi Rawas district, using E-Voting, the community support was very high because it was felt to be more efficient and effective. (Apriani et al., 2018) shows that in the Pilkades in Batanghari and Bogor regencies, E-Voting has succeeded in making it easier for voters, faster, more efficient, transparent and accurate at the time of voting, and counting votes can be relied on in the process of Pilkades disputes. (Wahyuni & Munar, 2021) shows that the election of village heads in Gandapura sub-district using SMS Gateway and E-Voting has succeeded in helping relevant agencies recapitulate accurate and targeted data. (Jaleha & Suriyani, 2020) found that the successful implementation of the Pilkades with the E-Voting system in Kambitin Raya village, Tanjung sub-district, Tabalong district was due to effective communication or socialization processes from the election committee. (Afifah et al., 2019) shows that the success of E-Voting is also determined by social capital, especially high trust in the village government. This policy is also supported because people feel that E-Voting is accountable and easier and more practical. Finally, (Yusmiarti, 2020) concluded that implementing the E-Voting System in the Pilkades in the Megang Sakti sub-district was strongly supported by the community because it was proven to help the election process faster and easier.

Second, from the aspect of constraints. (Prabowo, 2016) in his research related to E-Voting in Warungpring village, Warungpring sub-district, Pemalang district in 2016 found that the low participation of the community was due to the dislike of the village head who would come forward. (Saputra & Widayati, 2020) see the biggest obstacle in implementing E-Voting in Indonesia so that it cannot be applied comprehensively in all villages related to one of them is the availability of human

resources, especially limited socialization skills and understanding of technology, especially the elderly (elderly). Finally, (Rahmanto et al., 2021) seeing the low stakeholder trust regarding the benefits of Pilkades based on E-Voting in Sleman Regency from the aspect of efficiency, effectiveness and transparency of election results far E-Voting has not been implemented. This study takes a different point of view from all the studies above. The contribution of this research lies in the location, namely the village of Selotinatah which has never been studied before and also the use of the implementation theory of William Grindle which has never been used by previous researchers.

## METHOD

This study uses a qualitative descriptive method, namely research that produces descriptive data in written and verbal words relating to the circumstances or events of the E-Voting village head election in Selotinatah village. As for obtaining data using interview techniques with informants involved and documentation by obtaining research-related data such as documents, regulations, and archives. The informants in question are the village head election committee, the Selotinatah village community, community leaders and youth organizations, and the head of service or the Magetan Regency Community and Village Empowerment Service employees.

In the process of analyzing qualitative descriptive research data using 3 procedures (Moleong, 2017). First, data sorting (data reduction) where all data from interviews, observations and documents that have been collected related to the implementation of E-Voting in Selotinatah Village are filtered to produce relevant data. Second, the presentation of data where the data is displayed in the form of a narrative related to the implementation of the village head election in Selotinatah village. Third, drawing conclusions to determine the common thread in the implementation of the Pilkades in Selotinatah Village based on E-Voting.

## RESULTS AND DISCUSSION

The village head elections in Magetan Regency are implemented simultaneously, both conventionally and electronically. E-Voting is an election that uses an electronic device by touching a computer screen to cast a vote. At the same time, the manual chooses to use paper by punching in the picture and number of the candidate for the village head in voting. The E-Voting election process is almost the same as the village head election using a manual process, but the difference lies in the voting process and the tools used. E-Voting aims to provide efficiency and effectiveness of time and energy both for the community and the election committee.

The implementation of E-Voting in the Selotinatah Pilkades, Ngariboyo District, Magetan Regency is regulated in Regent Regulation Number 34 of 2019. It consists of 4 (four) stages. First, the preparatory stage with the formation of an election committee by the BPD involving Selotinatah community leaders, Selotinatah village officials, Selotinatah village communities, and the Ngariboyo sub-district head. Second, outreach to the entire community which is carried out in stages due to the low level of public understanding of E-Voting. This socialization was carried out through formal activities such as at the Selotinatah Village hall and SDN 2 Selotinatah whose activities were initiated and carried out by the village government and non-formal activities

such as thanksgiving events or community celebrations; yasinan and arisan. The third is the determination of the permanent voter list (DPT). The Selotinatah village community who already has an Electronic Identity Card (E-KTP) must first be recorded by the village election committee, then the voter list is updated and validated according to population data in the village by the Election Committee, by general criteria. The number of permanent voter lists in Selotinatah village is 4,697 people which are divided into 5 Preferred Regions (Dapil), namely Talang, Natah Village, Banaran, Danyang and Lamprang.

Fourth the Nomination Stage. In the election of village heads in Selotinatah village, there are three candidates for village head. Consisting of Purwati, Parni, and Mulyono. The three prospective candidates have fulfilled Perbup Number 34 of 2019 article 23. Fifth, the voting stage was held on November 27, 2019, at the Selotinatah village hall. Based on the results of an interview with Mr. Rikza Raihan as the person in charge of the Selotinatah village election and the secretary of the Selotinatah village, the queue was quite long because the verifier on checking the E-KTP experienced an error so the committee had to type it manually.

The village head election process flow in Selotinatah village is that the first voter (community) comes to the village hall with an invitation letter. The second shows the E-KTP to the committee for verification. Next, third, if the voter has registered, then shows an invitation card for a smart card. After that, fourth, voters enter the voting booth to vote for the village head candidate by touching the computer screen. Finally, fifth, the voter takes the receipt, folds it, and puts it in the audit box. After the voting phase is complete, the vote results are immediately known by the committee and the candidate for the village head and witnesses.

From the election results, Mr. Mulyono was elected as the village head with 2,278 valid votes, followed by Mr. Parni in second place (2,278 votes) and Mrs. Purwatu (16 votes). The results were then determined on December 17, 2019, at the Surya Graha Pendopo, Magetan Regency, which the Regent attended, appointed officials and the elected Village Head as well as the inauguration ceremony of the elected village head, which marked the final round of the Selotinatah village head election with the determination of village heads in general.

### *Implementation of E-Voting in Selotinatah Pilkades from Grindle perspective*

Merile S Grindle divides policy implementation into two aspects: policy content and policy environment.

The contents of the Policy relate to 7 (seven) aspects. First, the interests of the target group. The implementation of E-Voting in the Selotinatah Pilkades is certainly in the interest of the village community. Especially to provide change and convenience for the village community in choosing their leader candidates. During this E-Voting election, problems that often occur such as slow vote counting, misuse of multiple voters, remaining ballot papers do not occur in E-Voting elections.

Second, the benefits. Based on explanations from the election committee and the community in Selotinatah village, the E-Voting village head election consists of several benefits, including a) speeding up the counting of votes, in Selotinatah village the manual election of village heads takes a long time to count candidate votes even counting until late at night; b) the committee saves the budget for ballot papers. In this election, candidates as future village heads were selected by touching the computer screen so that paper was only used on ballot receipts;

c) The committee can control multiple voters. In implementing E-Voting in Selotinatah village to prevent double voter fraud, the main requirement is that voters must have an E-KTP. Previously, voters had to be registered on the Permanent Voters List (DPT). The election committee checks the E-KTP with a verifier for the mechanism, namely the E-KTP reader. If the voter has exercised their right to vote, the voter's name will appear on the computer screen, and the voter is no longer able to vote again; d) The voting process is more accessible and more practical. First, there is no need to fold the ballot paper. The two voters did not cast their ballots on the ballot paper but only had to touch the computer screen of their choice, the results would be automatically recapitulated; e) transparent, in the implementation of the Selotinatah Pilkades from the preparation stage to the stage of determining the village head election using E-Voting is very transparent, because this election was held for the first time in Selotinatah village with the quality of the community resources being low to middle class regarding the technicalities of E-Voting technology so that they could not manipulate the E-Voting election; f) more time efficient. The E-Voting election felt by the Selotinatah village community saves time.

Third, the range of expected changes. The changes felt by the Selotinatah village community were mainly in the development of technology in the village head election process. Village officials are required to be able to operate information technology. With this E-Voting, village democracy is able to provide new innovations, especially in the election of village heads. Then for the E-Voting election itself, community participation increases so that democracy is more alive among rural communities in particular. Community participation was seen during the process of socializing the introduction of technological tools in the E-Voting election where the community was very enthusiastic to be applied in their village. For rural communities, technological advances also provide changes to village democracy, including increasing the accessibility of public services. In addition, the expected changes are developing E-Government in the field of service for the community. So that in the future to realize village democracy such as increasing the accessibility of public services, increasing community participation, developing village autonomy can run better.

Fourth, the position of policymakers. Policymakers in the implementation of E-Voting in the election of village heads in Selotinatah village, namely the Magetan Regency Government through the Community and Village Empowerment Service, to finalize E-Voting. In addition, the Regency Government cooperates with the Agency for the Assessment and Application of Technology (BPPT) as the Patent Owner.

Fifth, implementing policies. The implementer of the E-Voting policy in the election of village heads in Selotinatah village is the BPD as forming the committee and supervisory team at the village level in carrying out all election processes by electronic means. However, policy implementers will still be assisted and coordinated with the Electoral Team from the district level, namely the Community and Village Empowerment Service, the Civil Registration Population Registration Service, and the Communication and Information Service as the team directly involved.

Sixth, the resources deployed to support the successful implementation of the village head election by E-Voting. In Selotinatah village itself, the capacity of human resources is quite adequate, as evidenced by the successful and smooth

implementation of the village head election. The number of human resources involved in the successful implementation of this village democracy, namely 41 personnel consisting of Selotinatah village officials, community leaders, Selotinatah village youths. The committee contributed greatly, as evidenced by the successful implementation of the E-Voting-based Pilkades in Selotinatah Village.

The Policy Environment relates to three (3) aspects. First, the power, interests, and strategies of the actors involved. The implementation of the E-Voting village head election in Selotinatah village is not only in the interest of Selotinatah village and eighteen (18) other villages. However, the election using E-Voting is also an idea and is in the interest of the district government, especially Magetan Regency. This is because the election using E-Voting is the first time it has been implemented, of course, this will be a pilot project for other districts/cities. The Magetan Regency Government certainly involves stakeholders in this election to succeed the Pilkades in Magetan Regency. The stakeholders involved are the Community and Village Empowerment Service, the Communication and Information Service, and the Population and Civil Registry Service.

Second, the characteristics of regimes and institutions. Characteristics of institutions in the village election policy environment E-Voting in Selotinatah village is not rigid. This is evidenced by the implementation of E-Voting in Selotinatah village involving all levels of society, not only village officials for the election committee. As well as being supported by community leaders, youth organizations, and village community organizations. Even the village head election committee patiently provided understanding to the village community. The committee's patience positively impacts the implementation of village head elections.

Third, compliance and responsiveness. The level of compliance and responsiveness in policy implementation is the compliance of the implementers (implementors) and target groups (communities). The village head election committee in Selotinatah village carries out its main tupoksi. In addition, the committee is very responsive in providing socialization to the community. Even the election committee worked outside the specified working hours to provide socialization and understanding to the community for the success and smooth running of E-Voting in Selotinatah village. Meanwhile, the community's compliance with the Selotinatah village community is willing to make an E-KTP, especially the elderly voters, where E-KTP is the main requirement in implementing E-Voting elections.

From the study results, there were also some serious obstacles in the implementation of E-Voting in Selotinatah village. Starting from the socialization process that is not fully accessible to the elderly, there are quite a lot in Selotinatah village. The socialization material presented was also difficult for the public to understand. From the infrastructure aspect, there are also technical problems. The E-KTP checking tool also had an error during the election, resulting in a fairly long queue. This is also coupled with the lack of E-Voting tools, and people have to wait a long time. This E-Voting tool is also difficult for people with disabilities to understand because it is very complicated and minimal socialization.

In practice, the E-Voting election in Selotinatah village obtained 38 invalid votes, and that was the most in all village heads with the E-Voting format in Magetan Regency. Apart from

that there are also some serious problems. First, the E-Voting tool in checking E-KTP an error occurred, resulting in a long queue for voters. This requires serious attention from the organizers, especially the village government must see the benefits of E-Voting whether it is able to improve the quality of Pilkades services or on the contrary it creates a burden that can cause problems, especially since the implementation of the Pilkades is carried out simultaneously which requires costs, manpower, tools in a short time and at the same time. . Second, the format makes it very difficult for people with disabilities to channel their agency.

## CONCLUSION

The E-Voting election process in Selotinatah village is a tangible manifestation of the local government to create a technology-literate society. This is evidenced by the fact that the election process went smoothly and by the Regulations issued by the Regent of Magetan Regency Number 34 of 2019 concerning Guidelines for the Election, Appointment, and Dismissal of Village Heads. Then during the implementation, it provides significant benefits for both the community and the election committee in terms of voting and counting votes. The election committee has worked and is responsible for following its primary duties and responsibilities. Each implementation policy is, of course, a constraint during its implementation. For example, in the selection of E-Voting, there are obstacles. The committee's socialization process when providing understanding to the Selotinatah village community takes a long time and is quite draining because the Selotinatah village community has a lot of older people. In addition, E-Voting tools such as the E-KTP reader did not work well because the fingerprints were not readable during the implementation process, so the committee had to manually type in the Employment Identification Number (NIK), resulting in long queues.

Furthermore, E-Voting in Selotinatah village can be maximized, especially in facilitating the elderly (elderly) villagers. This socialization is the essential part of understanding and trusting the community. The result of the socialization is community participation; therefore, the success of E-Voting is influenced by the socialization and participation of the village community. In addition to socialization, it is also necessary to increase human resources in technological knowledge, both the election committee and the village community. Then for E-Voting tools, especially E-KTP readers, it is necessary to pay more attention to details and improve the quality of the tools by the organizers. So that in the future, the E-Voting election can run even better and can be applied in all villages, not only in Magetan Regency but in Indonesia.

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