

Strategies for Organizing E-Voting-Based Village Head Elections in 2020: Study in Mempawah Regency, West Kalimantan Province

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ABSTRACT

The e-voting-based village head election in Mempawah Regency experienced several obstacles in its implementation, including the lack of readiness of the Village Head Election Committee to supervise the implementation of activities and the limitations of e-voting tools. Besides that, the uneven socialization in the community resulted in many people not understanding the e-voting-based village head election procedures. This study aims to find the strategy for overcoming these problems. This study used a qualitative exploration method, collecting data through interviews and documentation. The results of data analysis show that the strategy is in quadrant I, namely the progressive strategy (S-O strategy), where strengths and opportunities have greater than weaknesses and threat

INTRODUCTION

General elections are held by Government Regulation No. 1 of 2021 instead of Law No. 17 of 2017 concerning general elections. The law explains that general elections take place according to the principles of direct, public, free, secret, honest, and fair, and in carrying out elections, election administrators must conduct elections under the principles of independence, honesty, fairness, legal certainty, orderly, open, proportional, professional, accountable, effective; and efficient. In holding elections in Indonesia, most voting processes in Indonesia still use the conventional system with paper ballots. The process has weaknesses, including a long counting process, inaccuracy of counting results, no copy of the poll if damaged, controversy, and the amount of budget to print the ballot (Haryati et al., 2014)

Indonesia needs innovation to realize effectiveness and efficiency in conducting elections. This can be realized through an electronic voting system. By considering the many disadvantages of conventional voting systems, electronic voting (E-voting) can be an alternative (Choer & Kurniadi, 2017). E-voting means using computer technology for the implementation of voting or voting. E-voting is a system that uses electronic devices and digital information processing to create ballots, cast ballots, count votes, display voting results, and store and record ballots (Fakhrul., et al., 2013).

The implementation of e-voting in Indonesia is not new. E-voting has been implemented several times, but still on a small scale. The first and most successful implementation of e-voting was in the election of the Head of Hamlet in Jembrana, Bali, in 2009. In March 2017, e-voting was also used in the Babakan Wetan Village, Bogor regional elections. Even based on information submitted by the Minister of Home Affairs, the simultaneous village head elections held in 2021 have used an e-voting system. Thus, as many as 155 villages have tried using e-voting during village head elections. (Masrully, 2022)

Village head elections with the e-voting system in Indonesia have also been held in West Kalimantan. In West Kalimantan, the e-voting system was first implemented in Mempawah Regency, even on the island of Kalimantan, and became the eleventh e-voting organizer in Indonesia. The election of Mempawah Regency as the organizer of the village head election with the e-voting system certainly has special reasons, such as making Mempawah Regency a miniature head election. It is evidenced by the emergence of Mempawah Regent Decree Number 169 of 2017 concerning implementing Village Head Elections in simultaneous waves using the e-voting system in 2017 in Mempawah Regency. The decision of the Mempawah Regent was set on April 25, 2017. The implementation began in 19 villages organizing simultaneous village head elections in Mempawah Regency through the e-voting system.

In 2020, the Mempawah Regency Government re-implemented an electronic voting system to elect a second village head. It is also evidenced by the emergence of Mempawah Regent Regulation Number 66 of 2019 concerning implementing simultaneous village head elections with the E-voting system. Mempawah district held village head elections in 30 villages simultaneously. They were saved from March 2020 to June 2020. The Mempawah Regional

Government and the Center for Information and Communication Technology at the Technology Assessment and Determination Agency (PTIKBPPT) have collaborated with this e-voting system in the implementation of village head elections, where the election committee is formed from the Village Consultative Body (BPD).

As the first region on the island of Kalimantan to implement this e-voting election system, Mempawah Regency faces several obstacles in implementing e-voting. The use of E-voting in village head elections in Mempawah Regency cannot be separated from geographical distance issues, and village head candidates still do not accept the results of the village head election. The lack of Polling Stations (TPS) compared to the area of the area allows people to travel far to the polling station, and limited computer capacity and facilities, lack of community participation in village head elections, limited human resources for village head election organizers with e-voting systems, and still lack public understanding of computer-based technology.

To realize the implementation of effective and efficient e-voting-based village head elections. The performance of e-voting must be carefully prepared before the Village Head Election is held. The right strategy is needed to deal with these problems. So that the implementation of e-voting-based elections in the future can minimize these obstacles, this research is exciting to do because Mempawah Regency is the first region to carry out e-voting-based elections in Kalimantan. This study aims to find the right strategy for overcoming various problems in organizing e-voting-based elections.] The strategies found in the study can be a reference for other regions in organizing e-voting-based general elections. Previous research on e-voting in Indonesia has been widely conducted. In the last ten years, namely 2013-2023, the results of searching for journal articles through <https://openknowledgemaps.org/> sites using the keyword "e-voting in Indonesia " are 46 article documents discussing the implementation of e-voting in Indonesia. In addition, there are also 33 article documents through <https://scholar.google.com/>. Several articles discussing the performance of elections for regions and village heads based on e-voting were discussed in 2022, namely during the Covid-19 Pandemic situation as written (Fatmawati & Suparto, 2020; Neyman et al., 2013; Ultimate et al., 2022; Samad & Shafari, 2022; Santoso et al., 2022). However, from these various studies, no one has explained the strategy of e-voting-based village head elections, especially in Mempawah Regency. So researchers are interested in conducting this study.

LITERATURE REVIEW

The author uses evaluation theory to examine the implementation of e-voting-based village head elections in Mempawah Regency. It is a policy established through Mempawah Regent Regulation Number 66 of 2019 concerning the performance of simultaneous village head elections with the E-voting system. (William N Dunn, 2003) who explained that the implementation of a policy is influenced by six criteria: efficiency, effectiveness, adequacy, similarity, responsiveness, and accuracy. The description is as follows:

1. Efficiency refers to the effort required to increase a certain level of effectiveness.
2. Effectiveness relates to whether an alternative achieves the expected result or achieves the goal of the action.
3. Adequacy is the extent to which effectiveness satisfies the need, value, or opportunity that fosters the problem's existence. The adequacy criterion emphasizes the strong relationship between policy alternatives and expected outcomes;
4. Equity is closely related to legal and social rationality. This similarity points to the distribution of effects and efforts between different groups in society;
5. Responsiveness refers to how far a policy can satisfy certain groups of people's needs, preferences, or values.
6. Appropriateness is a criterion of accuracy closely related to substantive rationality because statements about policy appropriateness do not pertain to one individual standard but to two or more measures. Accuracy refers to the value or price of program objectives and the strong assumptions underlying those objectives.

The government's efforts in providing good public services by utilizing existing technology are the implementation of e-voting in the Village Head election. E-voting is expected to create a more effective and efficient village head election. E-voting is a relatively new technology to support the implementation of democratic parties, and the method has been applied in several countries. (Kahani, 2005). (Riera & Brown, 2003) Provide benefits in the performance of e-voting, namely:

1. Speed up the counting of votes;
2. The calculation results are more accurate;
3. Saving of printed materials for ballots;
4. Savings on ballot delivery;
5. Provide better access for persons with disabilities;
6. Provide access for people who have limited time to visit polling stations;
7. Polls can be translated into different languages;
8. Provide access to additional information about voting;
9. It can control parties who do not have the right to vote, for example, because they are minors.

In this research, the strategy consists of competitive activities and approaches to achieve satisfactory performance according to the target (Rachmat, 2014). Strategies are based on integrated and holistic analysis. That is, after the strategy is prepared, all elements in the organization already have a long-term perspective and are formulated to realize the vision and mission. The function of strategy is to strive so that the strategy prepared can be implemented effectively. Strategy has six tasks that must be performed simultaneously (Assauri, 2013):

1. Communicate a purpose (Vision) to be achieved to others.
2. It is linking or associating the strengths or advantages of an organization with opportunities from its environment.
3. Take advantage of or exploit the successes and successes gained now while investigating new opportunities.
4. Produce and generate more resources than are used now.
5. Coordinate and direct the activities or activities of the organization in the future.
6. Respond and react to new circumstances at hand all the time.

METHOD

The research conducted by the author is an exploratory qualitative research method. This method aims to deepen knowledge and seek new ideas about a particular phenomenon, describe social phenomena, and explain how a social phenomenon occurs to formulate problems in more detail (Mudjiyanto, 2018). Exploratory research in this study will find the right strategy for organizing e-voting-based village head elections. So that it can prevent and overcome various problems that arise. Data collection techniques include in-depth interviews, questionnaire dissemination, and documentation. The informants in this study were determined based on purposive sampling consisting of a Head of Social Services, Women's Empowerment and Child Protection, Community Empowerment, and Village Government, a Head of Communication and Information Services, a Head of Village Government, 2 Heads of BPD in Mempawah Regency, 2 Village-level Committees Implementing village head elections by e-voting, ten people voting in elections with e-voting. Data analysis in this study uses SWOT analysis to determine strengths, weaknesses, opportunities, and threats.

RESEARCH RESULT

In this study, the author used six criteria according to (William N Dunn, 2003) in looking at the implementation of e-voting. The six criteria are efficiency, effectiveness, adequacy, similarity, responsiveness, and accuracy. The results showed that:

1. Regarding efficiency, local governments and village head election officials have noted what must be prepared to implement this e-voting-based election as expected. However, some villages still find obstacles during preparation and implementation because the preparation time for the election of village heads is very short. In the performance of program socialization, there are still several villages whose implementation has not achieved the expected goals, so the village and the Village Government must be able to coordinate and cooperate reasonably at every stage.
2. The aspect of effectiveness. The smooth implementation of a program is essential. In organizing this e-voting, the organizing committee and the village government try to keep the performance soft and always conducive. In its implementation, there is a difference between the number of polling stations and e-voting tools. The number of e-voting tools is also not balanced with the number of people who come. In addition, people almost came together, so there was a buildup of voters simultaneously. People who come together are generally traders and fishermen. The majority of them have the same job, namely traders and fishermen. The author concludes that the number of polling stations previously regulated to a maximum of 2 polling stations in each village should be adjusted again to the number of existing communities.
3. Adequacy aspect. The collaboration between the Regional Government of Mempawah Regency and the Agency for the Assessment and Application of Technology (BPPT) resulted in the loan of 18 packages of e-voting equipment, including touch screen computers, smart cards, smart card readers, VVAT printers, CPUs, software. The implementation of village head elections with e-voting can maintain voter confidentiality. The application on the e-voting machine is made accessible so that voters do not need the help of others in exercising their voting rights, nor can the device be used by others who do not have access. In this case, it is necessary to pay attention to the adequacy of the number of e-voting tools with the number of people and anticipate unexpected events, such as power outages, that will impact these tools, considering that e-voting tools use electricity.
4. Aspects of similarity. This aspect is seen from the equitable distribution of program socialization. There are still some villages whose implementation has not achieved the expected goals. The community's lack of socialization causes many people not to understand this e-voting system. Ahead of the performance of e-voting, socialization carried out to village communities and village head election committees at the village and district levels was only carried out once. However, coordination can run well between parties involved in the election of village heads of the e-voting system.

5. Aspects of responsiveness. Implementing village head elections based on e-voting For the community as voters are new and provide positive things for the community. The neighborhood felt more transparent and saved time implementing the village head election. As for local governments, especially governments concerned with these policies, these benefit budget savings, increases public trust in the government and facilitates the process of conducting elections from start to finish from the beginning to the end of the election before using the e-voting system. The response from the community was excellent, and each party experienced benefits that made no disadvantaged party. Although some people do not understand the existence of this e-voting system, they feel benefited in time efficiency and feel more transparent in this election.
6. The aspect of precision. The accuracy in the e-voting-based village head election is measured through several indicators, namely community satisfaction and smooth implementation. From the research results, Mempawah Regent Decree Number 29 of 2020 is on target for villages in Mempawah Regency and the Mempawah Regional Government. Implementing e-voting-based village head elections is one of the right choices considering the rapid development of technology, including in the field of government.

DISCUSSION

Based on the findings in the research results above, various appropriate strategies are needed to maximize the future implementation of e-voting-based village head elections. Strategy determination is carried out through SWOT analysis, namely determining internal factors of strengths, weaknesses, and external aspects of opportunities and threats. The identification of internal and external factors can be seen in the table below:

Table 1. Identification of Internal and External Factors

No.	Internal Factors	Faktor Eksternal
	Strength (S)	Opportunity (O)
1.	The government commits to implementing e-voting-based village head elections in Mempawah Regency.	The high chances of achieving transparent elections.
2.	Good service in the implementation of E-Voting-Based Village Head Election in Mempawah Regency	The magnitude of the potential for community participation in implementing e-voting-based village head elections in Mempawah Regency.
3.	Fast and precise vote counting in the implementation of E-Voting-based village head elections in Mempawah Regency	We are increasing public awareness to participate in village head candidates.

	Weakness (W)	Threat (T)
1.	Areas far apart in implementing E-Voting-based village head elections in Mempawah Regency.	There are still people who have not accepted the change.
2.	Electronic tools are limited to implementing E-Voting-based Village Head Elections in the Mempawah Regency.	Some still do not accept the results of the Village Head Election.
3.	Lack of political awareness in the community in implementing e-voting-based village head elections in Mempawah Regency.	Some parties still consider the failure of the implementation of the e-voting-based Village Head Election in Mempawah Regency.

Source: Processed by author, 2022

After identifying these internal and external factors, calculations are made on each. The results of the Internal Factor Analysis Summary (IFAS) measure of strengths and weaknesses concluded that the strength factor weights 0.534. In contrast, the weakness factor weighs 0.466. So the strength factor has a higher weight than the weakness. In addition, the External Factor Analysis Summary (EFAS) calculation results explain that the opportunity factor of 0.641 is more important than the challenge factor of 0.359. Strength and opportunity factors are more critical than weakness and challenge factors. It can be seen in the quadrant below.

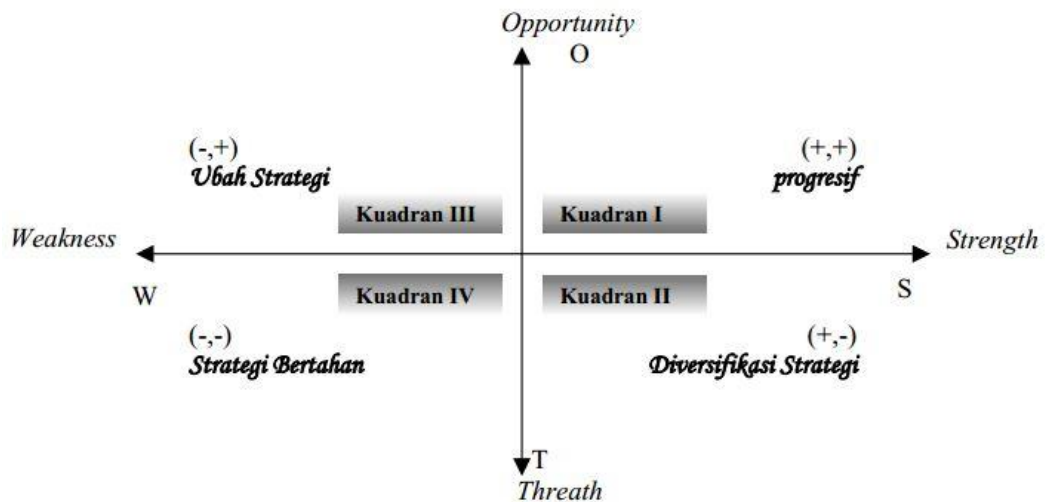


Figure 1. SWOT Matrix Quadrant

Based on this quadrant, the strategy that can be carried out in organizing e-voting-based village head elections in Mempawah Regency is located in quadrant 1 with a progressive strategy where strengths and opportunities have

a significant weight compared to weaknesses and challenges. The strategy that will be carried out can be seen in the table below.

Table 2. SWOT Matrix

<p>IFAS EFAS</p>	<p>Strength(S)</p> <ul style="list-style-type: none"> • Strong Government Commitment. • Good Service. • Fast and precise vote counting. 	<p>Weakness(W)</p> <ul style="list-style-type: none"> • Regions that are far apart. • Limited electronic tools. • There is still a lack of political awareness in the community.
<p>Opportunity(O)</p> <ul style="list-style-type: none"> • High chances of achieving transparent village head elections. • The magnitude of potential community participation. • Increased public awareness to run for head village. 	<ul style="list-style-type: none"> • Strengthen the government's commitment to creation of transparent village head elections. • Improvement of Human Resources in service. • Strengthening public awareness of the importance of democracy. 	<ul style="list-style-type: none"> • Expanding Polling Stations. • Cooperate with parties related to providers of electronic equipment and devices. • Increase overall socialization in the community.
<p>Threat(T)</p> <ul style="list-style-type: none"> • There are still people who don't accept change. • Some still do not accept the results of the village head election. • Some parties still consider the failure to implement the E-Voting-based Village Head Election in Mempawah Regency. 	<ul style="list-style-type: none"> • We are strengthening the regulations and providing understanding to the public that the change to the digitalization era is essential. • Provide an understanding of the accuracy of e-voting results to the public. • Invite the community to participate in monitoring the effects of e-voting-based village head elections. 	<ul style="list-style-type: none"> • Provide regular socialization through engaging community leaders. • Forming a committee that involves the village community directly. • Engaging Tech-savvy community resources.

Source: Processed by Author, 2022

Based on the SWOT matrix table, there are four strategies formulated, namely: SO strategy (strength-opportunity), WO strategy (weakness-opportunity), ST strategy (Strength-threat), and WT strategy (weakness-threat). Each SWOT analysis result (SO, WO, ST, and WT) produces three strategies. So that in total, there are 12 strategies, namely:

1. Strengthening the government's commitment to creating transparent village head elections.
2. Improving the quality of human resources in the service of village head election.
3. Maintaining public awareness of the importance of democracy.
4. Increasing polling stations in each village.
5. Cooperate with parties related to providers of electronic equipment and devices.
6. Increase overall socialization in the community.
7. Strengthening regulations and providing understanding to the public that the change to the digitalization era is important.
8. Provide an understanding of the accuracy of e-voting results to the public.
9. Inviting the public to participate in managing e-voting-based elections.
10. Provide socialization regularly and thoroughly by involving community leaders.
11. Forming a committee that consists of the village community directly.
12. Involving human resources who are familiar with technology.

The SWOT analysis results show that the village head election strategy is in quadrant I (Progressive strategy), namely the SO (Strength-opportunity) strategy. Strategies in the election of village heads in Mempawah Regency include:

1. Strengthening the government's commitment to creating transparent village head elections
2. Improvement of Human Resources in service
3. Maintaining public awareness of the importance of democracy.

CONCLUSIONS AND RECOMMENDATIONS

In organizing the village head election in Mempawah Regency, West Kalimantan Province, various appropriate strategies are needed to hold the village head election properly. Based on the analysis and discussion results, the strategy that needs to be done is a progressive strategy contained in quadrant I of the SWOT matrix, where there are greater strength and opportunity factors compared to weaknesses and challenges. This strategy is expected to be implemented well in the future election of village heads in Mempawah Regency. So that all obstacles can be adequately faced.

ADVANCED RESEARCH

This research has limitations, so this research in the future can be better developed, especially those related to e-voting. The implementation of e-voting can be a solution to realize effective, efficient, transparent, and budget-saving elections. The next researcher can conduct comparative studies related to the performance of e-voting-based general elections in various regions in Indonesia. So it is hoped that the following research results can be input in implementing e-voting in all areas of Indonesia.

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