



E-VOTING IN THE VILLAGE HEAD ELECTION IN BATANGHARI AND KABUPATEN BOGOR REGENCIES

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Abstract

The manual Village Head Elections (Pilkades) by using a ballot has weaknesses that then gives rise to various problems, among them that some of the voters cast the wrong way, slow counting process, as well as abuse of the voting invitation that should be given to the legitimate prospective voters, the government is required to find the right solution to minimize some of these problems, one of which is the application of e-voting technology (electronic voting). Therefore, this study will discuss the effectiveness of e-voting in Pilkades at Batanghari and Bogor regencies, the urgency of e-voting implementation on Pilkades; as well as the urgency of the policy requiring the use of e-voting on Pilkades. The method being utilized in this study used descriptive narrative method with a qualitative approach. While the data collection techniques are using interviews and documentation. The result of the research shows that the use of e-voting can facilitate voters, faster, more efficient, transparent and accurate at the time of voting and counting, also dependable in Pilkades disputes process. Therefore, a policy that provides an opportunity for the use of e-voting method in the village head elections is required, so that the implementation of e-voting in all village head elections can be performed more effectively. E-voting is also very important amid the rapidly growing use of technology.

Keywords: E-voting, Pilkades, Village, Pilkades Manual

I. INTRODUCTION

This study is about the application of e-voting in the village head election (Pilkades) in Batanghari, Jambi and Bogor regencies, West Java. The meaning of e-voting in this study is electronic voting referring to the use of information technology in the voting process. In addition, e-voting can also mean a system that uses electronic devices in the digital information processing to make the ballot, voting, counting of votes, shows the tally, as well as maintain and produce audit trail. The Pilkades referred to in this study is the election as stipulated in the Minister of Home Affairs Regulation Number 112 of 2014 on the Election of the Village Head, Pilkades is the implementation of the people's sovereignty in the village to elect the village head in a direct, public, free, in secret, honest and fair. While the meaning of the village is the unity of the legal community with its territory boundaries, which is authorized to regulate and administer government affairs, the

interests of local communities based on community initiatives, rights of origin, and/or traditional rights recognized and respected in the government system of the Unitary State of the Republic of Indonesia as stipulated in the Law Number 6 of 2014.

The majority of village head elections in Indonesia have been conducted manually. The election of the village head is referring to the Minister of Home Affairs Regulation Number 112 of 2014 on the Village Head Election, where its Article 33 stated that the election of the village head is conducted by voting for one of the candidate pairs, using a ballot paper to vote for the candidate. In practice, voters will come to the polling station and then manually register based National Identity Card (KTP), and vote by piercing the ballot paper.

However, the manual method has many shortcomings and causing problems, among which there are voters who are marking the ballot wrongly, the slow-moving vote counting process, and the

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potential for manipulation of the number of votes. Not to mention the potential for misuse of invitations given to potential voters who can not go to the polling station. In 2012 the conflict also occurred in the Pilkades of Bumbung Village, Mandau District which required the issuance of a Decree by the Regent of Bengkalis to appoint candidates (Sundari, 2012). The conflict occurred due to the supporter of one of the candidates requesting a re-counting of the vote, due to some pierced ballots considered to mark the other candidate. The election committee is also a crucial issue in the manual selection, they are often not neutral or even duped because they are not careful in the voting process. Susanti (2010) for example, in her study in Sugihwaras Village, Madiun District found a mismatch between the number of votes with the Permanent Voter List (DPT). The committee is suspected to inflate the vote and include unlisted voters. The manual election leads to resistance in the local community which ended in a conflict.

To solve the problems that arise in manual Pilkades, one of the possible ways is to use the electronic voting (e-voting) method in Pilkades administration. The electronic voting is considered to have several advantages, namely accurate, democratic, secret, fast, and transparent. The use of e-voting is not new in our country. Data from the Agency for Assessment and Application of Technology (BPPT) stated that, since 2013 to 2016, Pilkades with e-voting technology has been implemented as much as 526 times in 10 districts. 147 of them were using electronic verification (e-verification) using the e-KTP to validate the voter's data. The successful use of e-voting in the 526 villages then encouraged other areas to use e-voting in the Pilkades. Two of these areas is Batanghari District, Jambi which carried out e-voting in 33 villages simultaneously in 2016, and Babakan Village Ciseeng District, Bogor Regency, West Java which was held in 2017.

The use of E-voting has also been conducted in several countries such as Brazil, India, Australia, Estonia, France, and even the United States. In 2009, for example, 400 million Indians chose to use e-voting, in Brazil, voting results via e-voting can be found out in minutes while in Australia, e-voting can be used overseas in the 2007 elections for the 2,012 Australian armed forces located in Iraq, Afghanistan, East Timor, and Solomon Islands (Rokhman, 2011, pp. 6–7). However, the application of e-voting is not without problems, Moynihan (2004a) in his research reveals the possible risks in e-voting systems [such as over vote and system damage causing the final vote does not match with the number of voters coming to the polling station. In contrast to Moynihan, the application e-voting according to

Priyono and Dihan (2010) is very precise in keeping with confidentiality and security. E-voting is also considered to provide a number of benefits such as more cost-effective than an intricate, complex and inefficient traditional system, in terms of resources and investment; The timing of the election is faster and the calculation of results more precise than the manual system; The calculation results are more precise, accurate and minimize the case of human error as long as the system is secured from various threats of crime; and transparent, all processes as all is done by an automated system and online real time.

The study regarding e-voting is not actually a groundbreaking study, however, some of the earlier studies of e-voting such as those by Moynihan, Priyono and Dihan (Priyono & Dihan, 2010) have not studied the implementation of e-voting of an area in detail. In addition to these two studies, the BPP Kemendagri Study (2015) only looks at the problem of applying e-voting if it were implemented. Such as the geographical conditions and community participation. Other study of e-voting was also conducted by Choi & Kim (2012) who tested how political ideology, security, confidentiality, and technological effectiveness of e-voting in influencing the public confidence in using it. Choi and Kim found that the significant beliefs from voters about the system are also influenced by the use of technology that continues to be developed by the local government.

Another Study done by Drehem, Djanali, and Pratomo (2016) suggests that the use of e-voting with e-kiosk is more secure because it makes it easy for the users and admins. Drehem et al, in his study only offers complementary technology, e-kiosk with security reason. Anistiawati (2012) and Dewi (2016) concluded that the implementation of e-voting is a manifestation of the implementation of government system based on Good Governance, and helps improve public confidence in the district government, as well as eliminating public doubts in the implementation of the Pilkades. According to them e-voting also facilitates Pilkades implementation process, creates information disclosure of Pilkades results, saves the cost of implementing Pilkades, and is able to increase community participation in casting their choice.

In contrast to the above studies, this study aims to provide an overview of the implementation of e-voting in the Pilkades. To achieve that goal, this study will discuss several things, which are; The effectiveness of the use of e-voting in Pilkades at the study sites of Batanghari and Bogor districts; The Urgency of e-voting implementation in Pilkades; as well as the urgency of policies that require the use of e-voting on Pilkades.

II. METHOD

This study used a qualitative descriptive approach. This approach is used to get a comprehensive description of the implementation of e-voting in Pilkades at the study site. Primary data collection was conducted in addition to direct observation in the field as well as by interviews with some sources such as employees of the Village Community Empowerment Board (BPMD), Village Head Election Committee by e-voting method, and the elected Village Head from the results e-voting. Secondary data is obtained from the document of the implementation of Village Head election. The data is then reduced by focusing on the data that really needed, and presented to facilitate researchers in understanding what happened at the study site. The data that has been presented is then verified if in case there is weak data, the researcher would redo the search for a stronger data. Data is analyzed by combining a variety of archives regulation as well as other archives as well as a few other theories and studies related to the implementation of e-voting in Pilkades. The results of the analysis then presented in the form of a study report.

This study was conducted in March 2017, with study location in Batanghari and Bogor regencies, which was chosen because in July-August 2016 the district has implemented e-voting and e-verification

of Pilkades in 33 villages. Bogor District was also chosen deliberately, Bogor District has implemented e-voting in March 2017 as a trial stage in one village, Babakan Village, of Ciseeng Sub-District. The village is the most vulnerable and prone to riots. On the previous Pilkades, quarrels among the candidates of the village head due to discontent in the results of the vote count led to the burning of the village office.

III. RESULTS AND DISCUSSION

In this part, we will discuss several items mentioned earlier in the Introduction section, such as the effectiveness of the use of e-voting in Pilkades at the study sites of Batanghari and Bogor regencies; the Urgency of e-voting implementation in Pilkades; as well as the urgency of policies that requires the use of e-voting on Pilkades.

The implementation of e-voting in both research locations are generally not technically different, the equipment used, and the system being run are similar. If we want to see how effective this e-voting implementation would be, it would be necessary to compare the manual method with the e-voting method on the nine parameters used. The parameters were found through direct observation in Batanghari and Bogor regency in Pilkades process generally as described in Table 1.

Table 1.
Comparison between the Manual Method and the E-voting Method in Pilkades

No.	Aspects	Manual	e-voting
1	Easiness for voters	Opening of the ballot and folding it back after marking it.	Entering the voting booth and immediately face the monitor showing the image of the candidates. Performs two touch, First touch the picture of the selected candidate and second, touch "yes" to confirm the vote.
2	Accuracy in voting.	Possibility of damaged ballot due to the wrong way of marking or deliberately damaged by the polling committee.	Only one picture and one vote can be performed.
3	Accuracy in counting of the vote	There is difficulty in ensuring the accuracy between the number of vote and the number of the voters attended the polling station since there are opportunities to rig the unused ballot.	Accuracy between the number of vote and the number of the voters attended the polling station, every vote can also be verified by the voter by using the audit receipt. And evidence that the voter has cast their vote is the printed audit receipt, which is then put into the audit box.

No.	Aspects	Manual	e-voting
4	Speed of voting process	Opening and closing the ballot paper, looking at the images listed, takes a minimum of 5 minutes.	After facing the ballot, immediately touch the screen twice, on average it takes 10 - 30 seconds.
5	Speed in calculating the result	It took quite long to complete the calculation, some even until the middle of the night, and allow the tampering of the ballot.	When the POLLING STATIONS close, the tally of votes per booth directly known.
6	Efficiency	It requires printing of ballots as much as the number of DPT plus 2.5%.	The cost can be reduced to 50 percent if the voting equipment is used at least in 5x village head election.
7	Transparency	It takes quite a long time to process the count and summarized the results so that it can raise the suspicion of tampering the number of votes, as well as processes that are difficult to trace.	The process of calculating and summarizing the results is done automatically by the system, the results was directly published on the BPPT web, even when the manual writing in the plano paper in the TPS is still not completed, clear process and traceable.
8	Accountability	There is no certainty that the ballot has been tampered or not, so it can not be used as legal evidence. It could be used as legal evidence as long as the ballot contains security digital printing (would be expensive)	The audit receipt as the legal evidence, in accordance with the ITE Law. furthermore, the implementation nprocess can be audited by BPPT.
9	Post Pilkada Dispute Process	It takes a long time to compile all the paperwork, and a long time in court.	Might be settled by opening the audit box and recount the audit receipt, match them with the number of voters and the result listed in the official result latter.

A. The Implementation of E-voting in Batanghari District

The Batanghari District in July 2016 conducted the Village Head Election simultaneously using the e-voting method in 33 villages, in collaboration with the BPPT. The e-voting method of Pilkades in Batanghari was the first in Jambi Province. Not only that the method of election changes, in that Pilkades, the Village Head candidates are not required to pay for registration fee because it was budgeted in the Regional Government Budget (APBD). The day before the e-voting a simulation was performed in the village to the residents with samples between 20 to 50 prospective voters by using props. No difficulties in voting including the elderly.

However, on the voting day, there were difficulties with the elderly people who are not familiar with technology. Generally, their difficulty in determining their choice was due to illiteracy

and unfamiliarity with the technology, the incident occurred in the village of Simpang Terusan, Muarabulian District. Pilkada dispute with e-voting also appeared in Sengkati Village Gedang, Mersam Sub-district when the e-voting device went into an error during vote recapitulation process. This technical error occurred at the plenary stipulation of the elected candidate, when the e-voting system summarizing the vote, the names of the two candidates were switched. Candidate number 3, Masturi is shown as Bahari which should be candidate number 4. This situation confused the committee in determining which candidate wins the most votes Since base on the number, the most vote was for the candidate no 3, while based on the candidate name, the most vote was for Masturi.

The above events show, the application of technology does not just make it easy. Constraints like this can affect people's trust in the use of

technology. This event allows voters to be reluctant to vote later (Isiaq, Ambali, & Olayinka, 2018, p. 341)

B. The Implementation of E-voting in Bogor District

In 2017 Bogor District organizes Pilkades simultaneously in 36 villages. One village from the 36 villages was using electronic voting (e-voting) i.e., Village Babakan Ciseeng Subdistrict. Babakan Village was selected from the three villages in three different sub-districts who volunteered to use e-voting. Based on several indicators such as the number of eligible voters, readiness of the voters and vulnerability to conflict. Babakan Village has the highest points (92%) compared to the other villages. Babakan Village is a conflict-prone village. Based on the previous Pilkades, there was always some anarchy since the losing candidates refuse to concede defeat. It even leads to the burning of the village office. This also what prompted the Ciseeng District apparatus to insist on using e-voting on the Pilkades, including the BPD and the village committee.

The difficulties faced by the community in using e-voting method in Bogor District is the operation of the touch screen, usually, because the voter presses the touch screen for too long, and the number of wires that are often bumped by voters which then cause the system to hang. However, these technical issues do not impede the voting process and do not interfere with the voting system/application another difficulty occurs when voters have to confirm the choice of the selected candidate. The committee in charge of keeping the booth then have to direct which button to touch when the choice is correct, or which button to touch when the voter wants to change his choice

The application of technological developments (especially the basic principles that affect directly or indirectly must be done carefully in relation to the improvement of society. So that it must be supported by the readiness of the user community. In addition to technological readiness, of course, it must be supported by the readiness of the community to implement the e In the future, unpreparedness coupled with the lack of government socialization of e-voting can also be a trigger factor for failure in the implementation of this system (Hardjaloka & Simarmata, 2011, p. 581).

But understanding the implementation of e-voting opens up a new understanding of openness and responsiveness among governments, as well as government responsibilities. To implement it requires readiness in the field of telecommunication infrastructure, preparedness of human resources in the government, availability of funds and budget,

legal instruments, paradigm changes and the level of connectivity and use of IT by government (Angraini, 2015, p. 815).

C. Effectivity of E-voting of Pilkades in Batanghari District dan Bogor District

From Table 1, it seems clear that from nine parameters, generally, e-voting is quite effective to implement for Pilkades. From the results of the observations in both locations of Pilkades, only some of the problems of using e-voting, such as unfamiliarity with technology and e-voting media are vulnerable to damage. But it can not be taken lightly if seen from the convenience parameter, e-voting also apparently cannot be said to facilitate the voters, because there are still people who are unfamiliar with the technology, although in the end can be guided directly by the organizing committee. In such a case, the Pilkades should be seen as a political institution that is expected to improve the quality of democracy, therefore the participation of the people should be seen as the need for a leader who will lead them some time ahead (Sundari, 2012). The Facilitating Aspects can be realized with socialization support, either by core technical team or field technical team. The socialization in the form of simulation and the enthusiasm of the community to participate in socialization are the supporting power for that aspect so that there will no longer be problems in the future.

When viewed from the implementation of the elections in both regions, the parameters of ease for the voters can be said to be fulfilled. This can be seen from the enthusiasm of the community and curiosity of the new methods in Pilkades. E-voting results in high public participation in voting, where the average is more than 60%. In reality, the majority of people do not find it difficult to perform the e-voting method. The community feels that they were facilitated because they no longer complicated by ballots that must be opened and folded back when afterward.

In the selection process the e-voting also more accurate, if compared with the manual method. The manual method may produce damage to the ballot, while in e-voting there has never been any damage or mixed up ballot. The equipment preparation process also does not require a long time, because it only need computer for the verification, voting, printers, and audit boxes. Besides being accurate in the voting process, the e-voting method is also accurate during the vote counting process. In both study there were no difference between the number of voters and DPT which has been going on manual election. This accuracy is resulting from the verification process of DPT either during the

DPT data upload or when the voter entered the Voting Station. Moreover, e-voting runs together with e-verification, so multiple Identity Number (NIK), NIK different domicile and fictitious NIK are no longer found. This accuracy is supported by the application in e-voting, where it prevents a person to vote more than once (Ahmad, Azizah, & Studiawan, 2013, p. 8). In addition, it is accurate because the receipt that comes out after completing the vote can be verified by the voters themselves. Every receipt given to someone is a vote proof of voters. So even if in one receipt shows two candidates, it must be verified which one is the his/her choice.

Voting with e-voting is fast, since the average voter takes only 20 to 30 seconds in the voting booth. Even for elderly voters. Voter only need to enter the booth and touch the choice in the computer's screen. Then confirmed the choice, and the voting receipt would be print out and put into the audit box. Generally, there were no hurdle hampering the voting process. When a voter is unsure of how to operates a touch screen, a guarding officer will direct them on how to operate the touchscreen operation, rather than directing a selection. However, the presence of a vigilant officer needs to have a clear direction on the main task and function. This is to minimize the occurrence of fraud which could result in the rejection of the community because of the dishonest and fair system, since in essence the elections in the form of e-voting is the hope to realize a democratic party that is direct, public, free, confidential, honest and fair. The existence of the polling committee officer to assist the technology challenged voters also needs to be regulated. Such officer might have a preference towards one of the candidates, many occurrences of the member of the Committee to be involved in the conflict, plus the reluctance of the public to report election violations. Therefore, to anticipate the incidence of elections tampering, the election watchdog must prepare an anticipatory action (Sahdan & Haboddin, 2009). Rokhman (2011, p. 10) stated that, it is not just voters and organizers should be ready for e-voting, the witnesses and supervisors also must possess an IT literacy, training should be held for the witnesses and supervisors, the officers should have the competence to solve any problems arising in the Pilkades.

from the side of efficiency, e-voting need to be considered for Pilkades in other villages. First, the procurement of e-voting equipments only needs to be done once and can be used for three rounds of Pilkades as stipulated in Minister of Home Affairs Regulation No. 112 article 4 paragraph (2). Second, with the existing equipment will reduce the Pilkades' cost roughly by 50% (daily Publication, 2017). The reason is that the same equipment can be used for

5 times election. The cost reduction can be done if the Pilkades is done simultaneously, with different day for voting. For example, in a district that have Pilkades on 50 villages. Then all stages of the Pilkades done simultaneously, except voting stage, which is carried out in a minimum of 5 stages. To be efficient, the 50 villages will be divided in 5 group with an interval of 3 days, as such the equipment needs is only 1/5.

The next aspect is transparency. The e-voting method is quite transparent because the public can instantly know the result, either via monitor available at the Polling Station, or the BPPT via the web. For each Polling Station, the results are directly sent to the datacenter, which will automatically be summarized. Pilkades process also has records that can be audited and analyzed by BPPT. But on the other hand, E-voting still have major issues such as security and confidentiality (Moynihan, 2004b, p. 519). In the context of transparency, the challenge of using the e-voting method is the technological-savvy factor of the community. They have little confidence in the accuracy of the technology, especially in rural communities, along with the limited power to operate the equipment which does not fully cover the rural area. The transparency aspect is also a challenge when some of the equipment used sometimes go into an error and unable to operate because it is used for long periods of time. To that end, it is the necessity to obtain a licensed software or an open source software which could ensure a smooth operation. So, events like in Bogor district because the system hangs or mixed up of candidate's number in Batanghari could be avoided.

In the Accountability Aspects, the manual method, can not ascertain if the ballot has been tampered with or not, as such, it cannot be used as legal evidence. While with the e-voting method, the legal evidence is clear, in the form of an audit receipt, in accordance with the Information and Electronic Transaction Law (ITE), and the implementation process can be audited by BPPT. The e-voting method can be stated as accountable because it has a clear legal evidence and can be accounted for. The evidence of voting with the e-voting method is the audit receipt with a secure barcode, which will be printed after the voter cast their voice. Voters can check the accuracy of the receipt and then put it in the audit box. This is in accordance with the ITE Law Number 11 Year 2008 which states that electronic information and/or electronic documents and/or the print out results is a valid evidence of the law. The process of e-voting can be audited and analyzed, by BPPT after the Pilkades election. Security and reliability of e-voting became the strategic issues in the implementation stage. Although e-voting offer speed in calculation and distribution of the results

of the vote count but the aspect of validity of data must uphold is high because it is related to the validity of the election results (Rokhman, 2011).

The e-voting method is one of the solutions for areas that often have disputes and post-Pilkades riots because the losing candidates do not accept the vote count results. With e-voting, they will be able to understand that the system is quite accurate and fast in the vote counting process and cannot be tampered with during the voting process.

D. The Urgency of Implementation of E-voting on Pilkades

Relating to the urgency of e-voting for Pilkades, all of the sources that author talk to agree to implement the e-voting for Pilkades in the areas currently performing the Pilkades manually, considering its the benefits, as expressed Priyono and Dihan (Priyono & Dihan, 2010) which stated e-voting provide benefits in the form of the cost. The e-voting method is seen to be more efficient than manual methods are intricate, and complex, while e-voting is more efficient in term of resources and investment. The use of methods e-voting when viewed only from the provision of equipment for a one time use indeed is heavy and expensive. However, when viewed as an investment that can be used repeatedly, will certainly have a much higher efficiency. In addition, e-voting is also beneficial in terms of time, the e-voting method is faster, both at the time of the voting or counting of the votes. Comparison of methods of calculating time e-voting and manual methods shows a very different result. The result is more accurate and precise, human error problems which often slows the course of the vote count and the accuracy of the results is rarely found. In addition, e-voting uphold transparency, because all stages of leaving a trail that can be audited, as well as a system of automatic and real time. With these benefits, then the superiority of e-voting proved to be real.

The authors also found that the Public participation in the election using the e-voting at both study's location reached to 68%. For example, in the village of Babakan Regency of Bogor from the total number of DPT of 10,374 people, 7,078 inhabitants use their vote, meaning that only 3,296 voters don't use them, also it is interesting to mention, that not one vote was declared invalid. E-voting removes people's doubts in the implementation of the election of village head election. Referring to the analysis proposed by Gritzalis (2002), e-voting will be used more in the future, considering that some countries are already using it. According to him there are some advantages of using e-voting, such as to satisfy voters because of their convenience

E-voting can meet the special needs of people with disabilities. Another reason is that many countries have recently implemented e-voting in a small scale

Gritzalis's opinion is also increasingly evident, electronic voting technology, gradually becoming known in the community. More recently, on March 25, 2018, e-voting took place in 14 villages in Sidoarjo, East Java. The local community considered that E-voting is simpler than the manual recapitulation that is time-consuming, as well as prone to conflict. Sidoarjo District's Sub-directorate Head of the Village Government of Bappeda, Basori, acknowledged the issue. According to him, the e-voting process has a very minimal conflict, due to the short stages and time and also minimizes fraud (Kompas, 2018).

E. The Urgency of Policies Requiring Implementation E-voting At Pilkades

The use of e-voting to Pilkades certainly requires a policy that provides the opportunities to do so. Minister of Home Affairs Regulation Number 112 of 2014 on Election of Village Heads should be strengthened, in order to follow the growing dynamics of law. To strengthen it there are two things that should be in the spotlight; First, the method of voting in the Pilkades is done by voting one of the candidates by using the ballot (Article 33 paragraph (2)), whereas the Decision Letter Number 14/PUU-VII/2009 allows the use of other methods of voting, which is electronic (e-voting) Second, that the election of the village head is held on the same day in all villages in the district/city (Article 3)

The first discussion, in the Minister of Home Affairs Regulation Number 112 of 2014 Article 33 paragraph (2), clearly and decisively stated, that voting for village head election is done by marking one candidate on the ballot. Meanwhile, in 2009, Decision of Constitutional Court Number 147/PUU-VII/2009 was issued. The decision stated that e-voting can be interpreted by piercing/ticking on cumulative terms; Does not violate the principles of LUBER (Direct, Public, Free, Confidential) and Jurdil (Honest and Fair), regional readiness in terms of technology, financing, human resources, software, community readiness in the area concerned, as well as other necessary requirements.

In the dynamics of election development, the choice of the e-voting method as one of the voting methods has been included in the Election Law No. 1 of 2015, which was amended by Law Number 8 of 2015 and last amendment Law Number 10 of 2016 on the Second Amendment to Law Number 1 of 2015 on the Stipulation of Government Regulation in Lieu of Law Number 1 of 2014 on the Election of Governors, District Head and Mayor. Article 85

Table 2.
Comparison of Pilkades Regulations

Law Number 6 of 2014	Government Regulation Number 43 of 2014	Minister of Home Affairs Regulation Number 112 of 2014
<p>Article 31</p> <ul style="list-style-type: none"> Village Head Elections are held simultaneously throughout the District/City area The District/City Government issued the simultaneous Village Head election implementation policy stated in Article 1 in a District/City Regulation. Further provisions on the simultaneous Village Head election as referred to in paragraph (1) and (2) shall be regulated by a Government Regulation. 	<p>Article 40</p> <ul style="list-style-type: none"> Village Head Elections are held simultaneously throughout the District / City area <p>Explanation: The “simultaneous Village head elections” means that the elections was conducted on the same day, taking into account the number of Villages and the election costs.</p>	<p>Article 2</p> <ul style="list-style-type: none"> Village Head Election is conducted simultaneously once or can in stages. <p>Article 3</p> <ul style="list-style-type: none"> The one time Village Head election stated in Article 2 is held on the same day in all villages in the district/city. <p>Article 49</p> <ul style="list-style-type: none"> Further provisions on the implementation of simultaneous village head elections are regulated by the District/City Regulations The District/City Regulations as referred to in paragraph (1) shall be issued not later than 2 years after the Ministerial Regulation is enacted

of the Law states that voting for election can be performed by marking one time on the ballot or through electronic voting equipment. The one-time marking as referred to in paragraph (1) letter a is based on the principle of facilitating the voters, the accuracy in vote counting, and the efficiency in the implementation of the Elections. The electronic voting as referred to in paragraph (1) letter b is made by considering the preparedness of the regional government in terms of infrastructure and community readiness based on efficiency and ease of voting principle.

Thus, it is necessary to include an article that gives the choice of using different methods in voting, by marking the ballot or by using electronic equipment (e-voting) An important note, the e-voting method is an option, not a mandatory matter, given the stipulation of Court Decision Number 147/PUU-VII/2009, that the implementation of e-voting should consider regional readiness in terms of technology, financing, human resources and software, community readiness in the area concerned, and other necessary requirements. The choice of voting method is also not regulated by Law Number 6 of 2014 and Government Regulation Number 43 of 2014.

Second, the simultaneous election of village head election is regulated by Law Number 6 of 2014, Government Regulation Number 43 of 2014, and Minister of Home Affairs Regulation Number 112 of 2014. In comparison, it can be seen in Table 2.

The explanation of Law Number 6 of 2014 stated: “Especially regarding the election of

the Village Head in this Law is stipulated to be implemented simultaneously throughout the Regency/Municipality in order to avoid negative things in the implementation”. In other words, can be interpreted, Pilkades is implemented simultaneously on the same day for efficiency reason. In fact, if e-voting is held simultaneously on the same day across villages in districts, it will become inefficient, especially in terms of financing. Whereas in the next paragraph the explanation of Law Number 6 of 2014 stated “The simultaneous Village Head Election considers the number of villages and the ability of election fees charged to the Regional Budget of the District/City so that it is possible that the implementation will be in stages as long as it is regulated in the District/City Regulation”. It is clarified in the Government Regulation Number 43 of 2014, that the implementation of simultaneous Pilkades should consider the number of villages and the ability of the district/city budgets. Then in the Minister of Home Affairs Regulation Number 112 of 2014, in Article 49 (1) stated that further provisions on the implementation of the simultaneous village head election are regulated by District/City Regulations. As described above, the regulation of the village is actually flexible enough to provide an opportunity to technically organize the village head elections through the District/City Regulations.

With the goal of efficiency, the implementation of Pilkades can be implemented simultaneously in the preparation stage, nomination stage, and the determination stage. As for the voting stage, it can be done gradually, in the sense that the voting day

between the one village and another village is in a two-day interval. This does not violate or contradict existing regulations and is the right of districts to regulate voting, taking into consideration the number of villages and the cost capability (Article 40 of Government Regulation Number 43 of 2014). As BPPT's review of the efficient use of e-voting can reduce costs by 50% if the device is used at least 5 times. It was conducted by Batanghari District who implements Pilkades in 33 villages, using only 12 devices.

The gradual vote may also be regarded as one of the regional government's innovations in terms of voting process, in which the district government has the right to regulate "simultaneous" Pilkades in accordance with the capacity of the regional government, in particular with regards to financing. Thus, it is necessary to include an article that provides an opportunity for the district/city government to regulate the simultaneous voting process, in accordance with the capability of the district/city.

IV. CONCLUSION

E-voting should be applied to the administrative villages which conduct Pilkades manually, whereas for adat villages that do not conduct pilkades, it can be held in accordance with existing customary rules. E-voting in Pilkades needs to be implemented because it is effective in facilitating voters, accurate and fast in the voting/collection and counting, efficient, transparent, accountable and assist in the post-Pilkades dispute process. It also saves cost and time, and also transparent. E-voting becomes a necessity given the growing use of technology in various fields, even for governance. Additionally, a policy that requires not only the use of the e-voting method in the village head elections but rather a policy which gives freedom to the district/city governments to choose the method to be used in village head elections. The existence of this policy is important since regulation is a major factor necessary for the application of e-voting on Pilkades. The policy for village head elections is a dynamic policy and adheres to other applicable election regulations such as the Election Law in terms of voting methods and DPT making process. In addition, it should include articles that provide an opportunity for the Regional Government to innovate in the selection of methods for voting and vote counting, as well as articles that provide an opportunity for regional governments to innovate in terms of timing for voting. For that reason, the improvement of Minister of Home Affairs Regulation Number 112 of 2014 on Election of Village Heads is quite necessary.

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