

# The Implementation of e-Voting of Village Head in Pemalang Regency

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**Abstract.** The e-voting implementation of village-head in Pemalang Regency reveals some interesting findings. This research found that the implementation of e-voting of Village head in Pemalang Regency have been understood only in terms of a technological Leeway. The government inclined to produce an efficient democracy through the implementation of e-voting. However, the innovation of e-voting has been initiated without sufficient effort allocated for the strategic design to accommodate social and organizational initiatives. Thereby very obvious that e-voting is not meant to be a social utility that has a role in the process of political transformation. Therefore, a more profound education to boost voter digital capabilities are needed to help strengthen the relevance of e-voting in accommodating variations in voter demographic characteristics which in turn will encourage political structural transformation.

**Keywords:** e-Voting, Efficiency, Democracy, Pemalang Regency.

## 1 Introduction

The election process is one of the most important functions of democracy. They are not just an idea for an orderly transfer of power, but they also reinforce the trust and confidence of citizens. Symbolic functions elections covering three aspects: public character, the dimension of equality and duration of the electoral process. The public character of the traditional polls shows voter support for the democratic system. With the official and public go to the polls, voters expressed approval with the existing system and expressed a desire to actively take part in shaping public affairs. The second dimension, equality, representing the rights of every person, regardless of his race, income, education, etc. to participate in the elections. All citizens who enter polling stations have the same status. Last dimension relates to the length of the electoral process. The speed of the voting process is inherently slow down when people vote in the polling stations. Voters had to leave home to go to the polls and on the road, a ballot decision could possibly be reconsidered.

Village Democracies in Indonesia have had regular obstacles in doing free, fair, transparent, and credible elections. Most village elections are suffered from irregularities, electoral fraud, as well as inconclusive ballots. Aspinall and Mietzner [1], for instance, found the influence of local elites, patronage and "money politics", The innovation of e-voting have resulted in fixing difficult

for electoral fraudsters<sup>2</sup>, The technologies of e-voting assured the votes cast at the polling units will be exactly the same as the number of registered voters. Any discrepancy in figures will be spotted immediately. It is impossible for any electoral officer to plot with any bad politician to change the results. Any irregularities, beginning from the validation of the voters at all the polling units, will be easily detected by the card readers. The information stored in both the card readers. The result sheets brought to the ward levels would be taken back once there is indication of irregularities.

The central questions of this research, then, that support and stimulate this study are: (1) How to perceive the implementation of e-voting of village-head as an innovation in Pemalang?, and (2) How does the implementation of e-voting of village head in Pemalang Considered social, organizational and technological accounts of the innovation ?It is interesting to see the extent to which such factors combine to redefine rural voters' encounters with communications technology, as well as its impact on electoral outcomes. accordingly-voting has to be seen from different perspective that covers the relations among social, organizational as well as their interrelationships.

## **2 Research Methodology**

This study used a qualitative approach. It required interpretation by tacit knowledge and the negotiated outcome that is supported inductive thinking patterns. Tacit knowledge will be reflected in the data collected by researchers. The negotiated outcome meant that the interpretation of the researcher needs to be negotiated with the informant because the reality inferred formation derived from informants. So, the quality of the autonomy model of the innovation is highly dependent on the quality of the interaction of researchers with the informant. The natural background of research is very important. Data were collected from their natural state (natural setting) that is expected to obtain good data that can provide real information related to the implementation of Pilkades using e voting system implemented in Pemalang 2018.

## **3 Result and Discussion**

Electronic democracy, according to Kersting and Baldersheim [2], is a democratic political system that utilizes computers and computer networks to run a substantial process of political democracy. In other words, the articulation and aggregation of interests, communication and dissemination of information and decision making is run with the help of information technology. Optimistic outlook towards the use of e-voting emerged from political scientists. Digitization of voters in e-voting process helps to reduce the possibility of electoral fraud. Therefore Norris [3] believes that the use of technology in the electoral process would strengthen other sphere. Economically, e-voting will be able to make the election to be cheaper, faster, and more efficient [4].

Information technology is a socio-technical sphere that coined meaning when it interacts with other social agencies. Therefore, information technology is not simply a tool that can be used in any circumstances for specific purposes only, but it will connect social and technical world in the process of enrichment of human life. If we put in e-voting in the context of positive interaction between social and technological world, it can be said that the impact of the use of e-voting is a human work that was formed in the socio-technical context. The success of the implementation of e-voting, therefore, must be understood as the work of multiple factors: technical, organizational and social aspects of the system. Technically it gives emphasis on how technology and business processes transform inputs into outputs; while the system of social and organization put pressure on the need to consider the attitudes, skills and values and linkage of these elements in the organizational structure. Therefore, social and organizational aspects of the e-voting is as important as of the technological aspects.

The failure of the implementation of e-voting to increase political participation in elections is usually caused by a socio-technical gap. There are three reasons that can be tracked over the failure to achieve the purpose of the e-voting. First, the technology gap, the mismatch between the components of the e-voting system, hardware and software. Second, the social gap between political decisions and human behavior which is shown in the form of disagreements among users, and social values. Likewise, the gaps on the political culture and electoral protocols. E-voting obviously has different consequences among users for the use of these technologies emerge from a different agenda. Third, socio-technical gap with respect to the discrepancy between social policy and computer. It should be realized from the onset, that the technology used in the elections and the electoral system used, cannot be seen in isolation. They are mutually reinforcing.

An innovation can be Easily accepted by the community if the community members are Involved in every process that is undertaken. In the implementation of the Pilkades in Pemalang regency with this e-voting system, involving almost all elements of the village community and village government. For example, funding for the procurement of e-voting equipment is taken from the village fund. The village consultative body was Involved in the process of making the elections and regulations by evaluating and selecting the village Pilkades organizing committee. Where the committee consists of village Officials and village communities. After the committee consisted of village Officials and community members, they have to massively socialize the e-voting system for village head elections. In the process of diffusion of e-voting in Pemalang regency,

In the implementation of the Pilkades using the evoting system in Pemalang Regency, the total funds spent for the procurement of equipment was Rp.10,983,700,000 evoting (ten billion nine hundred eighty-three million seven hundred thousand rupiah, equal to US dollar 805396.54). However, the expenditure for the e-voting set was borne by 211 villages, where each village spent Rp. 49,700,000 (forty-nine million seven hundred thousand rupiah, equal to US dollar 3644.33) for a set of e-voting tools. The use of technology Carried out in the election of village heads in Pemalang District is arguably low cost Because one village only spent a set of e-voting tools for only Rp. 49,700,000 (forty-nine million seven hundred thousand rupiah). One set of tools consists of the Electronic Identity Card Reader, 2 laptops,

The shift in the way of voting for the elections and from traditional to modern and the counting of votes by utilizing technology saves more time in the implementation of village head elections, ranging from verification of voter data, the voting and Recapitulation of votes. The

verification process is done using an electronic ID Card (Identity Card = Citizen identification card) reader by means of an ID card affixed to the device, then authentication uses a fingerprint to Determine Whether the voters the candidate is included in the DPT (district). The results of the ID card reading are directly connected to the ID verification laptops. The following is an image of an electronic ID card reader. The results of the recording through the el reader ID cards are directly connected to the laptop verification, and this process determines the voters are legitimate Because they are registered in the DPT. This process of verification is very fast. After being declared a valid voter, then the voter gets a token substitute for the ballot, to be entered into the smartcard reader so that the picture selection, and the name of the candidate Appear on the touch screen. It saves time. Because, voters do not need to open the ballot paper. The implementation of e-voting of Pilkades (villages head election) in Pemalang is very convenience for the committee in the Recapitulation process, of what was once the conventional counting one by one ballot that spend a lot of time and effort. The use of technology makes the work of the village head election organizing committee, much lighter, and helps speed up the election results. This process of verification is very fast. After being declared a valid voter, then the voter gets a token substitute for the ballot, to be entered into the smartcard reader so that the picture selection, and the name of the candidate Appear on the touch screen. It saves time, because, voters do not need to open the ballot paper. The implementation of e-voting of Pilkades (villages head election) s in Pemalang is very convenience for the committee in the Recapitulation process, of what was once the conventional counting one by one ballot that spend a lot of time and effort. The use of technology makes the work of the village head election organizing committee, much lighter, and helps speed up the election results. This process of verification is very fast. After being declared a valid voter, then the voter gets a token substitute for the ballot, to be entered into the smartcard reader so that the picture selection, and the name of the candidate Appear on the touch screen. It saves time, because, voters do not need to open the ballot paper. The e-voting application program was made by BPPT RI. The application of voting in the election of the Pilkades has fulfilled the principle of direct democracy. The secrecy principle is used to keep voters' choices confidential, and it cannot be traced who chooses Whom. This application Also produce accurate the data Because all ballot papers are calculated accurately and systematically, not only accurately, the application produced by BPPT can also be verified, Because there is a receipt printout that comes out after the voter votes, and the voters can verify Reviews their choice through a piece of paper and then put it in the audit box.

Regarding the possibility of damage to the e-voting devices in the stores the voting process, each village would have around 2-3 technical field teams who had been trained and received LOL test certificates from the Ministry of Agriculture to take action when equipment was damaged. Besides the technical field team always Carried a backup e-voting set Provided an error Occurs and will be ACTED upon in accordance with the SOP submitted by BPPT. BPPT and INTI also has been able to become a provider of e-voting technologies domestically, so the problems associated with the supply of both hardware and software, can be overcome with good. Other issues related to social policy and technological disparities that led to the emergence of socio-technical gap can be overcome with the implementation of a long and storied socialization of the mechanisms of e-voting systems. Communities being involved in the decision-making process, choose a local committee and funded e-voting system itself. As a consequence of the social world and the world of technology meets harmonis. Both are not two separate things but mutually

reinforcing. This makes the adoption of e-voting in the implementation of village elections in Pemalang can run well, because of the public's confidence in the technology used and efforts to take advantage of e-voting technology for the benefit of the public service after the election is finished.

## 4 Conclusion

The use e-voting on simultaneously in the district Pilkades Pemalang is a form of diffusion of innovations that work in innovative ways to create high quality of local democracy, accountability, speed and accuracy in order to realize the sovereignty of the people to choose their leaders. Based on research conducted on e-voting in the elections and simultaneous implementation in the district Pemalang in 2018, we found that the adoption of the use of e-voting is well received by the community. Acceptance is due to the advantages gained by the use of the e-voting, ranging from a low financing cost, time efficiency and the good risk management to all possibilities that occur to the tool used. Most important in the decision to adopt e-voting is an effort to improve the selection of village heads to be more qualified, and in the same time improve public services; e-voting tool after the election of village heads can be used for administrative services to rural communities through independent village service program. Besides, the main reason for the implementation of e-voting is a drive to use technology in order that the unpleasant experience in voting using traditional methods do not happen again. Thereby, it is very obvious that e-voting is not meant to be a social utility that has a role in the process of political transformation.

## References

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## Appendix



1. Verification



2. The token generator tool



3. Touch screen in the ballot box



4. Physical evidence



5. Laptop for counting the result