

Collaborative Governance in the Implementation of E-Voting: A Study of District Elections in Sleman Regency

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Abstract

The research is to look at collaboration in the implementation E-voting system in Sleman Regency. The election of Village Heads using an E-voting system is something new for the community. The problem is focused on the collaboration sector between stakeholders in the Village Head Election in Banyuraden District, Sleman Regency. This research aims to see the form of collaboration between the Field Technical Personnel and General Technical Personnel in the implementation of the Village Head Election at Banyuraden Sub Governance theory used as a reference. The research is to use qualitative research methods and descriptive analysis techniques. The instrument used is data collection obtained from the results of Primar and Second data. Primary data was obtained from interviews with Sleman Regency Community and Village Empowerment Service, Field Technical Officers, and general Technical Officers, and Secondary data was obtained from research journals, news, and several written sources that support this research. This study concluded that the collaboration created had an impact on the course of village head elections in Sleman Regency, especially in Banyuraden district.

Keywords

collaboration; elections; e-voting



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1. INTRODUCTION

Lurah election is the exercise of people's sovereignty in the village to be able to elect *lurah* based on the principle of LUBERJURDIL (Direct, Public, Free, Secret, Honest, and Fair. The principle of "Direct" means that a voter has the right to vote in the direct election process and must not be represented by anyone. The principle of "General" means that general elections can be followed by everyone who has the right to vote in all regions in Indonesia. The principle of "Free" means that voters do not get coercion from any party in exercising their right to vote. The principle of "Secret" means that elections are conducted in secret and only voters know what they are voting for. The principle of "Honest" means that elections are conducted democratically and by what has been established. The principle of "Fair" means that elections are conducted with equal treatment of all voters to exercise their right to vote (Utami, 2019).

Sleman Regency is one example of a region in Indonesia that has implemented e-voting in general elections. This election was held simultaneously on October 31, 2021, in several urban villages in Sleman (Santoso et al., 2023). Unlike previous elections which were still held conventionally by passing, this election was carried out by an electronic machine (e-voting) that had been prepared by the committee. In its implementation, there is a main technical team and a field technical team. The main technical team is tasked with providing socialization to prospective voters and providing guidance to the field technical team. Meanwhile, field technical teams escorted the distribution of equipment from the village hall to polling stations. The day before the implementation, the field technical team conducted tool simulations and process simulations on the implementation day (Hardjaloka & Simarmata, 2016).

The implementation of e-voting in Sleman Regency cannot be separated from the collaboration process between the Sleman district government through the Community Empowerment and *Kelurahan* Office (PMK) with the Sub-District, Kades, TNI/Polri in Sleman Regency and the Agency for the Assessment and Application of Technology (BPPT) as well as with several State and Private Universities in Yogyakarta. The form of cooperation between the Sleman Regency Government is to hold socialization related to the technical implementation of voting. In this case, the Sleman Regency Government presented speakers from BPPT to strengthen their understanding of the implementation of elections and the operation of e-voting machines. Meanwhile, to realize elections through honest, transparent, and credible e-voting, the Sleman Regency Government involves 7 (seven) public and private universities in its implementation. The involvement of public and private universities

is through the presence of Field Technical Personnel (TTL) in the implementation of e-voting. In addition, before entering the community, there is a strengthening of understanding at the sub-district level involving elements of sub-districts, OPD, and even the TNI/Polri (Sleman, 2020).

Departing from the description above, therefore this study aims to see the form of cooperation between the Sleman PMK Office and several parties in it, namely BPPT, Sleman DPRD, General Technical Personnel (TTU), Field Technical Personnel (TTL) and Banyuraden *Kelurahan* conducting the e-voting process. With research that uses Indicators of Obstacle and Opportunity Theory, to support the advantages and disadvantages of this research, it is complemented by the Debating Strategy for Influence as a form of effective collaboration between the PMK Office and several related parties, and Planning Collaborative Action as an effort to identify the next step in the process of implementing the *Lurah* Election using the E-Voting system in Sleman Regency.

2. METHOD

This research uses a collaborative governance theory approach as a theoretical basis in this study. According to (Ratner, 2012) Collaborative governance has three stages as a collaborative process: identifying barriers and opportunities, debating strategies for influence, and planning collaborative actions. The stages are; The first stage to go through is to identify obstacles and opportunities. This phase is a process where each party involved in the collaboration process explains the problem, and then jointly formulates a strategy for solving it.

This study used a type of qualitative descriptive research. According to Denzin & Lincoln (2011: 3-4), qualitative research is an attempt to rationalize and interpret or interpret the reality of life based on what the researcher understands. Therefore, this type of research usually involves some type of field data evidence that describes natural and problematic events in the life of every human being (Dewanti et al., 2022). This research can make it easier for researchers because this type of research is more detailed and in-depth, considering that this research also focuses on quality. There are three main principles used in measuring the quality of qualitative research, namely: (1) Accuracy (overall and determination of the use of methods), (2) Credibility (meaning and findings are well presented), (3) Relevance (use of findings) (Mays & Pope, 2019).

The data collection technique used in this study is based on two data sources, namely primary and secondary. Primary data is data obtained directly from the first

hand as a key informant in research (interviews). The interview was conducted with Civil Servants (PNS) of the PMK Office of Sleman Regency, namely Aulia Frida Widiasmara, S.Sos as Subcoordinator of the *Kelurahan* Apparatus Substance Group, Al Adib Burochman, AP as Head of Institutional Development and *Kelurahan* Apparatus, and Sriningsih, S.IP as Sub-Coordinator of the *Kelurahan* Institutional Development and Institutional Development Substance Group and the Sleman DPRD. While secondary data is data obtained through official documents, articles, news, books, or from other existing sources.

3. FINDINGS AND DISCUSSION

3.1. *Identifying Barriers and Opportunities*

In the early stages of the collaboration process between the Community Empowerment Office and the District of Sleman, namely identifying obstacles and opportunities. This refers to the implementation of *Lurah* elections with E-Voting tools based on the identification of problems, namely errors in the system, Touch Screen, and difficult accessibility of locations in vulnerable and hard-to-reach areas. E-voting is voter voting concerning electronic technology systems, based on Sleman Regent Regulation Number 35 of 2021 the Community Empowerment Office and *Kelurahan* have carried out E-Voting as many as 86 *Kelurahan* in Sleman Regency. In research theory, Identification of Barriers and Opportunities makes it easier for researchers, because the Community Empowerment Office and *Kelurahan* of Sleman Regency collaborate with related parties, identifying the types of opportunities and obstacles faced when conducting E-Voting. The Community Empowerment and *Kelurahan* Office as the Leading Sector explained that the opportunity for collaboration with General Technical Personnel (TTU), Field Technical Personnel (TTL), and *Kelurahan* Institutions has carried out a socialization flow regarding the Technical E-Voting mechanism, then continued at the stage of Socialization and Simulation of *Kelurahan*, Villages, and Communities how the E-Voting tool works, as for the sequence of procedures in the *Lurah* Election. The public is asked to verify using a registered KTP, then the community who will vote is given by the KPPS Officer in the form of a Token generator that functions to activate and there is a Candidate Choice, after the election, the public is asked to enter the audit box to enter a paper containing a Barcode, this simulation is to educate so that when the *Lurah* Election is held using this E-Voting Tool they understand how the choice flows.

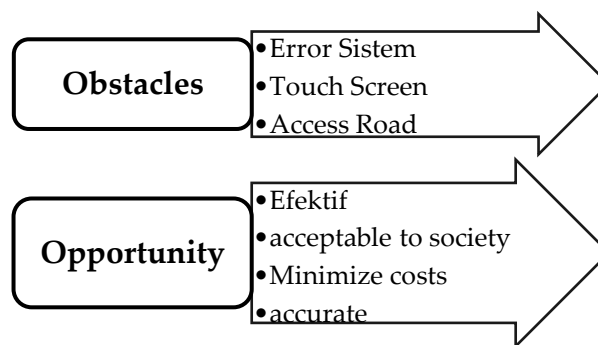


Figure 1. Identifying Barriers and Opportunities

Considering the obstacles to solving the problems that have been identified, in the form of system errors that occurred at 9 polling stations simultaneously with a total of 200 voters, as well as errors in the Touch Screen system on the monitor screen caused by the number of voters, so they pressed the monitor screen hard, and finally, the road access was passed by mobile polling station officers, because the mobile polling station officers who visited people's homes were, in fact, elderly and their settlements were still in the same location difficult to reach, making it difficult for polling station officials to access it, which previously they came by car or motorcycle, they were forced to walk for the Democratic General Election.

3.2. Strategies for Influence

In the second phase, the Community Empowerment Office and Kelurahan formulated a breakthrough strategy. The presence of E-Voting is a new thing so technological disruption is the cause of the community in implementing E-Voting to be an obstacle. The strategy of the Community Empowerment and Kelurahan Office of Sleman Regency together with existing stakeholders in dealing with these conditions is to conduct regional-level socialization in each sub-district in Kabaputen Sleman. Policy discussions and agreements with the DPRD are one of the creations of E-Voting in the Sleman Regency. This effort was made to realize the success of the *Lurah* Election in Sleman Regency. E-voting itself is a new thing so people need to socialize with stakeholders. The community has conducted socialization with stakeholders or policy stakeholders involved in this program to hold dialogue or discussion about the obstacles that have been explained in the first stage. At this stage, the Community Empowerment Office and Sleman Regency held discussions with the Technology Research Assessment Agency (BPPT) in the operation of e-voting machines. So that socialization is carried out together with Padukuhan and *Kelurahan*, with the target of among, Village Institutions or *Kelurahan* and coral cadets.

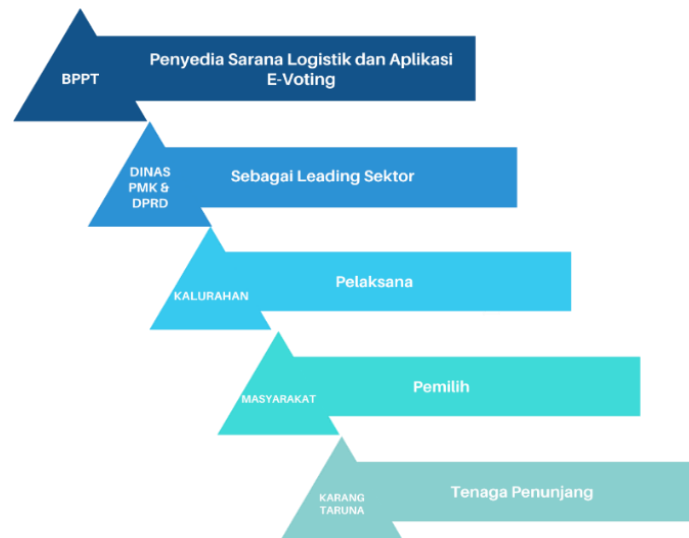


Figure 2. Strategies for Influence

The PMK Office conducts socialization at the Village/*Kelurahan* and Padukuhan levels, striving to carry out socialization so that people who originally did not understand become familiar with the mechanisms and technical flows during the *Lurah* Election through E-Voting. According to the target of Socialization in *Kelurahan* Focus on *Pamong*, *Kelurahan* Institution Representatives, Karang Taruna with the hope that they can socialize in the future to the community. At the Padukuhan level Focus on citizens, the priority community referred to here is the Elderly / Elderly because the problem here is that the elderly community has very little knowledge about the implementation of E-Voting technology-based *Lurah* Elections, in the end, it can be conveyed and the hope can be understood. The elderly community needs guidance even though socialization has been carried out.

3.3. Planning Collaborative Action

In this third stage, the Community Empowerment and *Kelurahan* Office of Sleman Regency took collaborative steps by implementing the cooperation plan stage with *Kelurahan* in Sleman Regency. One of the successes in the *Lurah* Election of the Community Empowerment Office and *Kelurahan* of Sleman Regency is the holding of 23 polling stations in Banyuraden *Kelurahan* in collaboration with external parties in organizing the *Lurah* Regional Election. The known obstacle at the time of implementation was the Covid-19 outbreak so the efforts made by the organizing committee were very strict so that the general election in Banyuraden Village went well. To overcome this, prevention is needed in the form of implementing Health Protocols that are not spared by determining effective strategies. Stakeholders or

policy stakeholders are involved in planning the implementation of each strategy that has been discussed in the previous stage, such as the initial step is a collaborative process between stakeholders from the PMK Office with Village Agencies, General Technical Personnel (TTU), and Field Technical Personnel (TTL) as organizers. Then identify any cooperation processes that continue to take place during the period when the *Lurah* Regional Elections are held in Sleman Regency.

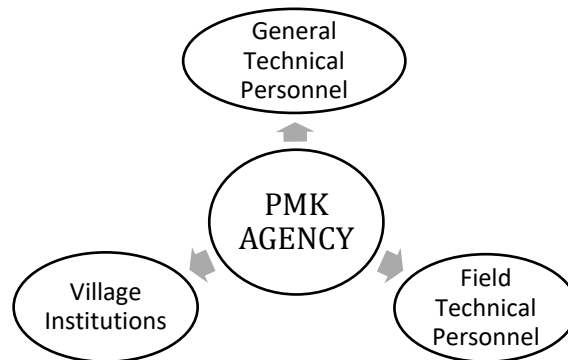


Figure 3. Planning Collaborative Action



Figure 4. Research Documentation 2022

In the implementation of E-Voting, the Community Empowerment Office and *Kelurahan* as the leading sector under BPPT carry out the *Lurah* Election. The total number of voters in Banyuraden Regency was recorded at 11,678 people. One way to make the *Lurah* Regional Election a success with E-Voting is by collaborating between institutions. What is done by the Community Empowerment Office and *Kelurahan* is to collaborate with external parties, including referring to *Kelurahan* Institutions and those who are experts in the IT field. Efforts were made before the election of the Community Empowerment Office and *Kelurahan* held a socialization of Bayuraden sub-district, Gamping District, Sleman Regency. The determinants of the success of the election with E-Voting include the formation of field committees, namely General

Technical Personnel (TTU), Field Technical Personnel (TTL), and *Kelurahan* Institutions.

Procedure and Socialization of KPU Sleman on E-Voting

In the procedures used by KPU Sleman in carrying out socialization measures to the community by conducting various consensuses and communication with other organizations. Service procedures are a form of convenience provided by KPU Sleman to the community in service. The procedure is formed in a clear and accurate systematic manner using language that can be understood by the community so that they can know the contents contained in the procedure. Then, on the other hand, socialization is also an important factor in introducing a product objectively to public services. To support the success of the products created by the Electronic-based *Lurah* Election system, the *Kelurahan* Community Empowerment Office and the Sleman Regency KPU in their implementation made breakthrough procedures that are easy and effective in their implementation so that they can be well accepted by the community. In addition to procedures and socialization, the results of interviews with the Community Empowerment Office and *Kelurahan* also introduced this E-Voting tool to 35 sub-districts that will carry out the *Lurah* Regional Elections and 86 sub-districts in Sleman Regency. Socialization is carried out in two stages, effective and structured. However, none of the total number of districts held Electronic Subdistrict Elections due to time constraints at the time due to the COVID-19 pandemic. So that the Community Empowerment and *Kelurahan* Office of Sleman Regency need time to target all sub-districts so that they can carry out the *Lurah* Regional Elections electronically.

Collaboration Between External Actors

Through the Community Empowerment and *Kelurahan* office, a Special Committee was formed. To realize the smooth running of activities are the duties of General Technical Personnel (TTU), Field Technical Personnel (TTL), and *Kelurahan* Institutions. In the implementation of E-Voting in Banyuraden District, the Community Empowerment Office and *Kelurahan* give authority. General Technical Personnel (TTU) consist of Civil Servants (PNS) or non-civil servants with a background of having expertise in Information Technology and can operate computers. The task of the General Technical Personnel (TTU) is quite general, namely coordinating the course of *Lurah* Election activities in Banyuraden Regency and regulating the main system of the E-Voting tool. So that when system maintenance occurs, the General Technical Personnel (TTU) has the right to instruct the system which is an error. field activities and systems contained in the E-Voting Application,

so if something undesirable happens, then General Technical Personnel (TTU) will be carried out.

Field Engineering Personnel (TTL) are formed consisting of Civil Servants and non-Civil Servants who have an understanding of information technology and can operate computers. Their Field Technical Personnel (TTL) as a form of cooperation between Field Officers to succeed the *Lurah* Regional Election in *Kelurahan* Banyuraden, Sleman Regency. To ensure that all electronic devices require the preparation of a functioning E-Voting tool when voting begins, it is followed by checking network connectivity and hardware such as applications, computer scanners, and printers. followed by the readiness of the E-Voting system to be protected from potential data manipulation and security threats.

After the election is over, Field Technical Personnel (TTL) assist in the process of reporting election results. Field Technical Personnel (TTL) ensure that the results that have come out of the E-Voting election are stored safely and ready to be accessed by the authorities. With the results that have come out, Field Technical Personnel (TTL) continue to evaluate the performance that has been carried out in the *Lurah* Pilkada in *Kelurahan* Banyuraden, Sleman Regency.

Participation in elections does not escape village institutions. The committee formed became the basis of the concept of collaboration between stakeholders. Lembaga *Kelurahan* was formed as a Polling Organizing Group (KPPS) at polling stations so that its participation is expected to help the running of harmonious and neutral *Lurah* Regional Elections, as mentioned in Law Number 6 of 2014 concerning Villages article 32. Furthermore, the agreed committee prepares the election and carries out the report of the results of the *Lurah* election.

Advantages and Disadvantages of E-Voting

E-voting is an electronic device that votes against a registered Candidate. The capabilities generated by E-Voting can speed up data tabulation, by minimizing voter costs and can contribute to preventing unauthorized voters (Saladin 2009).

The presence of E-Voting is the impact of modern changes created by technology, the implementation of democratic parties at the village level utilizes technology that makes it easier for people to vote. E-voting has several advantages, including: simplifying the calculation of votes, facilitating the implementation of elections, and minimizing the costs incurred. The implementation of general elections using technology is expected to be a solution to overcoming problems arising from the implementation of elections held. There are positive benefits of this E-Voting tool, namely:

1. The sound results that come out are more accurate
2. Shorten time
3. Faster calculated calculations
4. Keep available ballots
5. Save money on ballots
6. Available to access
7. Access to information related to voice options is available
8. There is an automated method for voters who are underage or over the set age.

3.4. Voting mechanism of the E-voting system

At the beginning of the election, people are obliged to queue. Voters who have attended then go to the entrance to hand over the invitation to the verification officer and voters get a smart card from the generator officer, voters who have submitted a smart card to the officer, voters can proceed through the entrance by handing the invitation to the verification officer, then the voter submits the smart card to the booth task by inserting the smart card into the smart card reader, Thus, the choice of the candidate appears, voters can vote by touching the screen "Yes" if voting and "No" if not voting among candidates

The results of the votes selected by the voter will be printed through the printer. The selector enters the paper that has been printed by the printer into the audit box. Then dip your little finger in ink as a sign that you have chosen. The election is over and voters can continue to walk out through the exits.

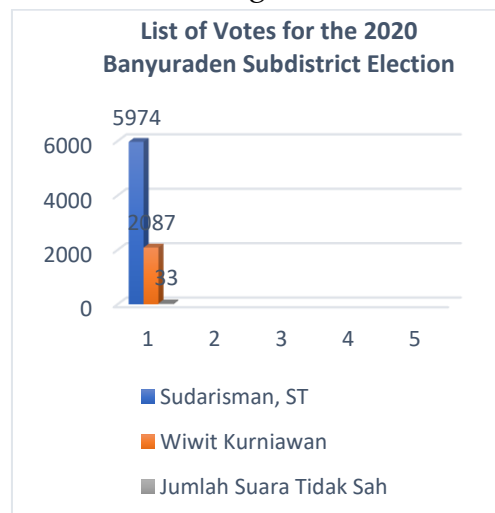


Figure 5. List of Votes for the 2020

The results of the Recapitulation of the *Lurah* Election in *Kelurahan* Banyuraden consisting of 2 candidate pairs namely Sudarisman, ST (Number 1) and Wiwit

Kurniawan (Number 2) have been obtained from a total of 23 polling stations won by Sudarisman, ST voted for candidate number 1 with a total of 5,974 votes, and Wiwit Kurniawan obtained 2,087 votes. With a total of 8,061 valid votes.

The implementation of the Banyuraden Regency *Lurah* Regional Election with the E-Voting Method in 2020 has supporting and inhibiting factors because the E-Voting method is new in the concept of subdistrict elections in Banyuraden Regency.

Efforts to support the implementation of the *Lurah* Regional Election using electronic regional elections in Banyuraden district, Kapanewon Gamping, Sleman regency in 2020 were formed by committee members who have encountered minimal difficulty because they have understood computer operations in the implementation of E-Voting in Banyuraden district. The public has accepted what has become the digital transformation of elections by electronic methods. The E-Voting infrastructure that has been prepared in Banyuraden Regency comes from the Sleman Regency Empowerment Office.

An obstacle in the implementation of the *Lurah* Regional Election by electronic method (E-Voting) in Banyuraden Regency in 2020 was the discovery of a System Error in voting with a total of 200 voters. As a result of this error, the data obtained using old data, the discovery of the Permanent Voter List (DPT) who have died, registered but are outside the area, and sick become unchanneled like manual elections, thus the committee brings supporting tools, namely E-Voting so that it functions to be distributed to electricity, that the election of voters who are in an unhealthy state cannot participate in the general election, And then. The problem of error in the system is quite serious, where the application is used not only at 1 polling station but at several polling stations in the Sleman Regency. To avoid errors in the system, there must be a simulation first to anticipate errors in the Pilkades system. The discovery of the old DPT is a problem because data on the people selected to take part in the village head election is not updated. To avoid data errors, it is a good idea for the sub-district to update it every year so that registered communities and during the village head election the input data can be distributed to every polling station in the sub-district Sleman Regency.

The Results of the research *Lurah* election using E-Voting on December 20, 2020, in *Kelurahan* Banyuraden, *Kapanewon* Gamping, Sleman Regency, the total vote counting of the two candidates between Sudarisman, ST, and Wiwit Kurniawan was carried out. The determination of the results obtained by *Lurah* Candidate No. 1 Sudarisman, ST with a total of 5,974 votes (the most votes), and Wiwit Kurniawan *Lurah* Candidate No. 2 obtained 2,087 votes. thus the legitimacy of the *Lurah* election

in *Kelurahan* Banyuraden was won by Sudarisman, ST with the most votes. So the results contestation for the village head election in Banyuraden District can run smoothly without any problem. This shows that the variables studied have answered the factor That Influences the Study of Village Head Elections in the Sleman Regency.

4. CONCLUSION

Based on the research result, E-voting is a manifestation of the implementation government system based on good governance. E-voting is a Government Application that has been used as a tool for the Village Head election in Sleman Regency which is structured with an information Technology System and interaction Relations between Communities. This E-voting Implementation Policy helps the Sleman Regency Government increase public trust in government service by using the E-voting tool and able to eliminate the mindset of cheating in the community from the resulting voting results. This does not escape the form collaboration process produced between stakeholders in the implementation of E-voting in Banyuraden District, Sleman Regency, which has the Collaboration components. Recommendations for further research are expected to be able to conduct quantitative research that shows the result of a more in-depth survey of field conditions regarding the level of success in the implementation of E-voting at the level of one of the sub-districts in Sleman Regency.

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