JPSI (Journal of Public Sector Innovations)
Vol. 9, No. 1, November 2024
Journal homepage: https://journal.unesa.ac.id/index.php/jpsi/index
Print ISSN: 2541-4291
Online ISSN: 2348-396X

To link to this article: https://doi.org/10.26740/jpsi.v9n1.p24-33

Diffusion of Recapitulation Information System (SIREKAP) Innovation in Realizing the Integrity of the 2024 Elections in Meranti Islands Regency, Riau Province, Indonesia

Bherry Tinanto
Department of Political Sciences, Faculty of Social and Political Sciences,
Andalas University, Indonesia

Aidinil Zetra
Department of Political Sciences, Faculty of Social and Political Sciences,
Andalas University, Indonesia

Roni Ekha Putera*
Department of Public Administration, Faculty of Social and Political Sciences,
Andalas University, Indonesia
roniekhaputera@soc.unand.ac.id

Abstract

This article discusses the diffusion of Recapitulation Information System (Sirekap) innovation to improve the integrity of the 2024 Election in Kepulauan Meranti Regency, Riau Province, Indonesia. The diffusion of innovation provides an overview of the extent to which the community accepts adopting the Sirekap Application. Integrity is a very important value in elections, so many developed countries utilize technology to improve the integrity of their elections. However, using technology not only improves election integrity but can also damage election integrity. The Indonesia General Election Commission (KPU) is trying to improve election integrity by using Sirekap to count and recapitulate votes in the 2024 election. Sirekap is a means of publishing vote counting and recapitulation tools. The use of Sirekap in the 2024 election has sparked debate among stakeholders at the national level. However, this incident did not occur in Kepulauan Meranti Regency without debate in the community. The purpose of this study is to analyze the efforts of the KPU of Kepulauan Meranti Regency, Riau Province Indonesian in communicating Sirekap technology to stakeholders and the social community and to analyze the assessment of stakeholders and the community regarding the existence of Sirekap. This research uses a case study method with triangulation techniques from interview data and documentation. The study results show that the Sirekap Innovation Diffusion Process in the Meranti Islands Regency is running quite well by conveying innovations in supporting Sirekap. However, some innovations are not legally certain and prone to problems. The openness of public information and transparency of election result data are well established, thus realizing elections with integrity. Communication is carried out to all stakeholders except the community, even though the community is an important element in elections. User mastery of Sirekap technology is relatively fast. The social system that is formed is based on election organizers' sense of responsibility for the tasks that have been given. Election organizers, election supervisors, and election participants mostly responded well to the use of Sirekap in the Meranti Islands Regency. The community, as an element that is not directly involved with Sirekap, also gave a good response by actively accessing Sirekap on the 2024 Election results publication page so that Sirekap facilitates openness of information and transparency of election result data to realize elections with integrity.

Keywords: Election Integrity, Diffusion of Innovation, Sirekap

Corresponding author(s): Roni Ekha Putera, roniekhaputera@soc.unand.ac.id

Article history: Received, 16 August 2024; Revised, 27 November 2024; Accepted, 29 November 2024.

To cite this article:
Tinanto, B., Zetra, A., & Putera, R. E. (2024). Diffusion of Recapitulation Information System (SIREKAP) Innovation in Realizing the Integrity of the 2024 Elections in Meranti Islands Regency, Riau Province, Indonesia. *JPSI (Journal of Public Sector Innovations)*, *9*(1), 24–33. https://doi.org/10.26740/jpsi.v9n1.p24-33

INTRODUCTION

The implementation of elections always has problems that touch on the issue of election integrity. Election integrity problems also occur in the oldest democracy in the world, namely the United States. The 2016 US Presidential Election highlighted concerns related to claims of massive voter fraud and a lack of public trust in the media, with Russian interference designed to exacerbate both of these weaknesses. Increasing partisan and ideological polarization and low trust in the media are often experienced in elections in the United States. Other risks, such as terrorism and electoral malpractice, increase anxiety among the public. These triggers damage public trust in the legitimacy of elections and democracy in the United States. (Winburn, 2020).

The risk of election integrity can also be seen in Brazil; if we look at The Perceptions of Electoral Integrity (PEI) in Brazil, there was a decline in 2014 from 68 to 60 in 2018. However, the figure increased again in 2022 to 69. In 2022, international election observers said that the elections in Brazil were fair, but malpractice by the government and its supporters made the competition unbalanced. Misinformation is one of the causes of the increasing risk to election integrity. Rumors, fake news, and conspiracy theories spread rapidly in this country, primarily through messaging applications like WhatsApp. The debate over the integrity of the election in Brazil has become very heated, discussing the issue of internet regulation legal reform, followed by a decision by the Brazilian Supreme Electoral Tribunal which decided to ban former President Bolsonaro from competing in the election for eight years.(Tarouco, 2023).

In the 2019 election in Thailand, the public could predict the final results of the election. This shows that there is a system of deep-rooted military domination. Political positions that are structurally unbalanced were created to support General Prayut. The electoral law and the performance of the election management institution in Thailand are below standard. The election in Thailand is not a process of broader democratization but a fully developed autocracy. The new constitution was designed to strengthen the military and traditional elite institutions in the election and reduce the important role of political parties. Authoritarian rules of the game that make the military power back in power. Election regulations like this make the people's voice less in choosing the new leader of Thailand. Authoritarian rule has proven effective in suppressing political dissent and pluralism (Sawasdee, 2020). Negative perceptions of election integrity were also found in Southeastern Europe in the countries of Bosnia-Herzegovina, Croatia, and Serbia, which affected the political stability of the country (Mochtak et al., 2021).

With many problems in the implementation of elections that intersect with integrity, many countries are utilizing technology to improve election integrity. In Nigeria, one of the regional gubernatorial elections used Smart Card Readers (SCRs) and Permanent Voter Card (PVC) technology. The role of this technology is to authenticate and verify voters on election day. The results of the study showed that this technological innovation was effectively used, and the tendency of people to use this technology again in the next gubernatorial election was categorized as high. This is a positive impact of the use of technology. (Isiaq et al., 2018). This technology can prove an increase in election integrity in Nigeria.

Still from a third-world country in Africa, the implementation of elections in Ghana used the Biometric system for Voter Registration and Verification (BVRV). This technology helps register and verify voters with a biometric system. This technology encourages voters from urban categories to increase participation in elections, while voters from rural areas are more concerned about using this BVRV technology. In 2012, the use of this BVRV was considered not good. There was an improvement from 2012 to 2016. So, with the improvement of BVRV technology, trust in election-organizing institutions in Ghana increased(Adams & Asante, 2022).

Canada uses Electronic Voting (E-voting) to digitize the election voting process to improve election integrity. The United States, India, Estonia, the Netherlands, Germany, the Philippines, and Canada have used voting machines. E-voting in Canada has been used for more than 15 years. For election security and to protect against threats to election integrity, regulations are needed to maintain Canadian public trust in elections (Essex & Goodman, 2020). The use of technology is not perfect without the internet. A study shows that using the Internet makes elections fair and transparent to improve election integrity. (Stockemer, 2018).

The use of technology in Kenya is a new way of committing fraud. Where technology is obtained, distributed, and utilized is technical and political (Odote & Kanyinga, 2021). Although technological developments promise much hope, technology often fails to meet its needs. No matter how sophisticated the use of technology in elections, the technology is still controlled by humans. Thus, using technology in elections becomes a dilemma that can increase public trust or damage the credibility of elections. (Cheeseman et al., 2018).

From the results of a survey conducted by election experts in measuring the Perception of Electoral Integrity (PEI) index in 2023, world countries during the 2012-2022 elections stated that Finland achieved the highest election integrity perception index and the lowest index achieved by countries on the African continent including Comoros, Equatorial Guinea including Egypt. Meanwhile, the Election Integrity Perception Index in Indonesia has a score of 58 (Garnett et al., 2022). Thus, Indonesia must increase its Election Integrity Perception Index to gain public legitimacy.

The General Election Commission (KPU) of the Republic of Indonesia (RI), in carrying out its duties as an election organizer, has also often utilized Information and Technology (IT) to facilitate all its work. In addition to making things easier, election technology is also expected to support election integrity in Indonesia. In the General Election, digitalization can speed up the vote-counting process, make it easier for the public and election

participants to obtain information, and increase voter participation. (Ricky, 2022). This Information Technology becomes an election infrastructure to support the optimization of the role of election organizers.

The Indonesian KPU has begun developing technology to increase trust in the election results. In the 2014 General Election in Indonesia, several technologies were used as a form of innovation in the election, including the Political Party Information System (Sipol), Voter Data Information System (Sidalih), Vote Counting Information System (Situng), Nomination Information System (Silon), Election Stage Information System, Logistics Information System (Silog), KPU Website and Legal Documentation and Information Network (JDIH) (Lee et al., 2017).

The KPU uses the Political Party Information System (Sipol) application in political parties' registration, verification, and determination stages. Sipol is a means of supporting the creation of elections with integrity. Several factors that indicate Sipol as a supporter of the creation of Elections with Integrity are transparent, accountable, honest, and accurate (Rahayu, 2018). In updating the voter list, the KPU uses a Voter Data Information System (Sidalih) technology, which functions as an infrastructure for election organizers to compile and update the voter list when organizing elections in Indonesia. Sidalih can be utilized to get the best data results from Sidalih by implementing work discipline with indicators of the work activity of Sidalih operators.(Akbar et al., 2020).

The KPU also uses the Nomination Information System (Silon) application in candidates' registration, research, and determination stages in both the General Election and the Regional Head Election. In its implementation, there are still many weaknesses in the Silon application. Among the weaknesses are the lack of infrastructure and planning readiness, the less than optimal work of the organizing human resources, the lack of technical guidance and socialization of the implementation of the Silon application, and the lack of community participation (Ekowati, 2019). The server used by Silon is also inadequate, causing various problems in its use. Silon also does not have clear regulations for its implementation. (Femiliona, 2021).

Electronic recapitulation was carried out by the KPU from the 1999-2019 elections. (Pratama & Salabi, 2020). In the 2019 election, the KPU utilized the Counting Information System (Situng) as a publication tool to encourage integrity in the implementation of the 2019 election. (Agus, 2018). The use of Situng has caused societal controversy. 2 (two) Things made Situng not run well in the 2019 Election. First, data input errors, and second, because of the long process of inputting C1 copy forms (Ramadhanil et al., 2019). This momentum triggered the movement to mobilize the masses to create public distrust, ultimately leading to efforts to weaken the legitimacy of the election results. (Mahpudin, 2019).

In the evaluation of the 2019 Election by Bawaslu RI, it was stated that although the KPU's Situng was not the basis for determining the election results, the results of the Situng publication became controversial in society.(Arya Fernandes August Mellaz, 2019). However, by using Situng, more people know the results of the election compared to people who do not know the election results. (Alam & Sultan, 2016). Evaluation of the use of Situng in the 2019 Election made the Indonesian KPU update the Situng application to the Vote Recapitulation Information System (Sirekap), which was used in the 2020 simultaneous regional head elections. The fundamental difference between Situng and Sirekap is the role of Sirekap as a tool in the multi-level manual recapitulation process.

The KPU used the Recapitulation Information System (Sirekap) in the 2024 Election. Sitemap is an information technology-based application device that is a means of publishing vote counting and recapitulation of vote counting results, as well as a tool for implementing the recapitulation of election vote counting results. The five functions of Sirekap are to read and summarize Form C of the vote counting results at the TPS, to calculate and tabulate the vote acquisition data from the Election results at each level of vote recapitulation, to send the vote acquisition data in stages according to the level of vote recapitulation from the KPPS to the PPK to the Regency/City to the Province, to print the Certificate Form for the vote acquisition results at each level of recapitulation and to publish each vote acquisition result at each level of tiered recapitulation. (Kawima & Harling, 2021). The use of Sirekap as a special application in the 2024 Election is stated in the Decree of the KPU RI Number 115 of 2024.

Of the many discussions of technology with the conclusion of the pros and cons of election technology in providing a role to improve election integrity, researchers have not widely discussed the Sirekap technology used by the Indonesian KPU in the 2024 Election. Previous research only discussed how to implement Sirekap in the 2020 Simultaneous Election in various regions with the weaknesses of the technology. Other research on Sirekap looks at it from the perspective of socio-technical changes in society. Previous research was only conducted on the 2020 simultaneous elections and did not comprehensively discuss the factors and variables that make the KPU gain legitimacy in society.

This research was conducted in the Meranti Islands Regency, the most challenging area in terms of accessibility in Riau Province, consisting of several islands. Meranti Islands Regency is also the poorest area in Riau Province, which affects the fulfillment of cellphone specifications to support Sirekap used by KPPS operators. This study proves whether the diffusion of Sirekap innovation in the 2024 Election in the Meranti Islands Regency can be accepted by the community and whether it can improve the integrity of the Election in Indonesia or create poor integrity for the election in Indonesia, especially in the Meranti Islands Regency.

In the 2024 election, the KPU had various problems with using Sirekap. Several KPPS members who used Sirekap complained that they could not log in because the server often had errors and had difficulty uploading photos of Form C. The results during the trial before

voting(Amaliyah, 2024). Several TPS also experienced errors when converting data. (Zaman, 2024). Data anomalies at TPS that could not be corrected so that they tended to inflate the votes of one of the presidential candidate pairs also occurred (Demo, 2024). The KPU also ordered the ranks below to temporarily stop the plenary at the sub-district level until the data synchronization with Sirekap was appropriate. (Muliawati, 2024).

With various problems, Sirekap has received a lot of criticism and demands from various parties. Bawaslu asked the KPU to explain to the public the problems of Sirekap in the field. (Abbas, 2024). PDI Perjuangan rejected the use of Sirekap and asked for a forensic audit to be conducted (Sinambela, 2024). PKB also expressed regret towards Sirekap, which had spent such a large budget (Suwanti, 2024b). PKS asked the KPU to immediately evaluate Sirekap because it was feared to be a source of problems for the integrity of the election (Feisal, 2024).

Different views regarding Sirekap also emerged from other groups. Gerindra said that Sirekap could not add fraudulent votes. (Rachmadina, 2024). Golkar also said that Sirekap was a KPU tool for publication; the calculation used was manual and hierarchical. (Suwanti, 2024a). PSI said that Sirekap must continue with improvements and refinements. Matching with the manual counting process must also be done. The Indonesian General Election Commission, through Idham Holik, also said that it would not close Sirekap and that Sirekap would still be accessible to the public. (Luxiana, 2024).

The percentage of votes received at https://pemilu2024.kpu.go.id/ for all types of elections in the Meranti Islands Regency as of February 27, 2024, went well even though the data had not been 100 percent entered. The many criticisms and demands from various parties regarding the use of Sirekap nationally made the Indonesian General Election Commission finally stop displaying the Sirekap vote counting graph on March 6, 2024, on the grounds that there were high errors in reading the 2024 Sirekap which caused public misunderstanding. However, the public can see Form C. The results of each election are on the website https://pemilu2024.kpu.go.id/.

Strangely, criticism or support regarding the use of Sirekap did not appear in the Meranti Islands Regency. There is also no report on the difference in the results of Form C.Results with Sirekap on https://pemilu2024.kpu.go.id/. This makes the researcher assume that the KPU of the Meranti Islands Regency has not communicated Sirekap optimally and comprehensively to stakeholders and the community in the Meranti Islands Regency, so the social system is actually apathetic towards the use of Sirekap technology in the Meranti Islands Regency.

This study will explain how the KPU of the Meranti Islands Regency communicated Sirekap technology to stakeholders and the community and how stakeholders and the community responded to the existence of Sirekap in realizing the integrity of the 2024 Election in the Meranti Islands Regency. This study uses the theory of diffusion of innovation as conveyed by Rogers and uses the concept of election integrity as stated in Law Number 7 of 2017.

Rogers (1983) said that diffusion is a process in which an innovation is communicated through certain channels over time among a group. This communication is a special type because the substance of the message is related to new ideas. Communication is a process that allows participants to share information with each other to achieve a common understanding. Communication between humans can describe certain communications accurately in the actions or events involved in diffusion, where agents persuade clients to adopt an innovation condition and describe events before and after the innovation process. In the diffusion of innovation theory, there are four main elements: innovation, communication channels, time, and social systems.

Four main elements in the diffusion of new ideas are, first, innovation, and second, which is communicated through specific channels. Third, over time, and fourth, among members of a social system. Innovation is an idea, practice, or object perceived as new by one person or another adoption unit. Technology is a design for instrumental action that reduces uncertainty in the cause-effect relationships involved in achieving desired results. Most technologies have two components, namely hardware and software. Hardware is a tool that embodies technology in material or physical form. At the same time, software consists of the knowledge base for the tool. Software information contained in a technology serves to achieve desired results.

First, technological innovation provides certainty and other uncertainties because it is new to individuals. Technological innovation also makes people deepen the innovation to be evaluated, which is called information innovation evaluation. The characteristics of an innovation as perceived by a social system determine the level of its adoption. Five attributes of innovation include (1) relative advantage, (2) compatibility, (3) complexity, (4) trialability, and (5) observability.

Second, communication is a process that involves participants creating and sharing information with each other to achieve mutual understanding. Diffusion is a particular type of communication in which the information exchanged relates to new ideas. The essence of the diffusion process is the exchange of information in which one person communicates a new idea to one or more others. The process involves (1) an innovation; (2) an individual or other unit of adoption who has knowledge of it or experience using the innovation; (3) another innovation; an individual or other unit that does not yet have knowledge of the innovation; and (4) a communication channel connecting the two units. A communication channel is the means by which a message is received from one individual to another. For example, it involves mass media such as radio, television, newspapers, and so on.

Third, time is an important element in the diffusion process. In fact, most other forms of research are timeless in the sense of time. Time is a clear aspect of any communication process, but most nondiffusion

communication does not explicitly address it. The inclusion of time as a variable in diffusion research is a strength, but measuring the time dimension by means of respondents' memories has been criticized. The time dimension in diffusion involves (1) the decision of the innovation process through which an individual passes from first knowledge of an innovation through its adoption or rejection; (2) in the innovation of individuals or other adopting units, namely the relative speed or slowness of innovation compared to other members of a system; and (3) in the rate of innovation adoption in a system, usually measured as the number of system members who adopt the innovation in a given time period.

Fourth, a social system is defined as a set of interrelated units engaged in joint problem-solving to achieve common goals. Members or units of a social system can be individuals, informal groups, organizations, and/or subsystems. Systems are analyzed in diffusion studies. For example, it might consist of all the farmers in a village in Asia, a high school in Wisconsin, doctors in a hospital, or all the consumers in the United States. Diffusion occurs in a social system because the social structure of the system affects innovations and limits the spread of innovation. This element discusses how social structure affects diffusion, the effects of diffusion norms, the role of opinion leaders and change agents, types of innovation decisions, and the consequences of innovation.

METHODS

This study uses a qualitative research method, with the type of research being an instrumental case study. The type of case study research is instrumental, where this study uses cases as an instrument to describe research issues (Wahyuningsih, 2013). By using this method, researchers will obtain complete data that can be described clearly so that the results of this study are truly in accordance with existing field conditions. The data collection technique in this study uses the triangulation method, namely a combination of data sources, researchers, and theories, and the relationship between researchers and those being studied cannot be separated. The selection technique uses purposive sampling. This technique is a way for researchers to intentionally identify informants based on certain criteria or considerations that they know best about the process of utilizing Sirekap in the field.

The analysis is carried out systematically from the materials obtained from data collection, both interviews, observations, and literature studies, which are then interpreted and analyzed to produce new thoughts and perspectives. Data validation is carried out by triangulating data so that the data becomes accurate. The number of informants is more than 10 people based on certain criteria or considerations intentionally, where they know the most about the process of utilizing Sirekap in the field. The research was conducted in the Meranti Islands Regency, Riau Province, by taking data from nine sub-districts in the Meranti Islands Regency. The nine sub-districts were taken from several villages or sub-districts in each sub-district that were able to provide a picture that was correlated with this research in March 2024.

RESULT

This study uses the theory presented by Rogers on the Diffusion of Innovation in the utilization of Sirekap. This theory discusses four main elements, including innovation, communication channels, time, and social systems. This theory is a guideline and research guide in answering various problems to be studied. In addition to the theory presented by Rogers, the concept of election integrity in the Principles of Election Implementation is also used to see the extent to which Sirekap is communicated and its utilization that touches on election integrity.

a. Sirekap Innovation

The five attributes of innovation, as conveyed by Rogers, include relative advantage, suitability, ease, trialability, and observability, as has been conveyed regarding the Sirekap application in the 2020 simultaneous elections as a comparison to find out new ideas that emerged in the Sirekap application in the 2024 Election. If previously there were only 1 or 2 types of elections, then in the 2024 Election, the Sirekap technology accommodates five types of elections including the Presidential and Vice Presidential Election, the Regional Representative Council (DPD) Election, the People's Representative Council (DPR) Election, the Provincial Regional People's Representative Council (DPRD) Election and the Regency/City Regional People's Representative Council (DPRD) Election.

The relative advantage variable in the Sirekap Mobile 2024 application can be seen when compared to the cellphone specifications required in the 2020 Simultaneous Election. In the 2020 Simultaneous Election, the Sirekap specifications are regulated in KPU Decree Number 597/PL.02.2-Kpt/06/KPU/XI/2020 concerning Instructions for Using the Recapitulation Information System in the Election of Governor and Deputy Governor, Regent and Deputy Regent, and/or Mayor and Deputy Mayor in 2020. A cellphone with a minimum camera of 5 MP, a minimum RAM of 2 GB, and a minimum Operating System (OS) of Android 4.4 Kitkat is required. In the 2024 election, the minimum specification was Android 9, but it was not stated in the form of legal regulations.

The cellphone specifications for using Sirekap 2024 should be more sophisticated than Sirekap 2020, but the regulations regarding these specifications do not have legal force, so they do not force KPPS to have the same specifications. Registration and account activation through new means, namely WhatsApp, have better security. In addition, the features and appearance of the Sirekap content have also undergone slight changes to accommodate the fulfillment of new documents. Form C. Results for the Presidential and Vice Presidential election types use the OMR system, which claims better data reading accuracy so that data goes directly to the KPU server. Writing Form C. Results for the Presidential and Vice Presidential election types use a different procedure that has been regulated by the KPU RI.

To ensure the integrity of the election in terms of accountability, the specifications of the cellphone should be emphasized and stipulated in a regulation. Without clear

legal certainty, election organizers have set aside cellphone specifications, which have a major impact on data reading. However, cellphone specifications need to be adjusted to the capabilities of the Indonesian people. This is related to the effectiveness of operating technology in producing quality data.

The problems of utilizing Sirekap technology in the 2024 Election by the Meranti Islands Regency KPU that emerged were the problems of the KPU RI server being down or having errors, weak internet networks, and errors caused by the OMR system specifically for the type of Form C. PPWP Results. All of this actually has mitigation, including using Sirekap offline for server and network problems and clicking the wrong button so that it does not appear on the website https://pemilu2024.kpu.go.id/. These problems touch on the integrity of the election, namely election malpractice related to administrative problems, lack of technical capacity, and human error.

The OMR system is actually very good for Sirekap technology. However, by not creating a correction menu on the OMR system used in the type of Presidential and Vice Presidential Election, the risk of publishing data is very high. The accuracy of the election results data is very important; if there is a difference in data, it can lead to criticism from the public and even the loss of legitimacy of the election organizing institution in the eyes of the public. The writing pattern of Form C. The President and Vice President's Results must also be clarified in the regulation so as to provide legal certainty and not make mistakes in the implementation process. The use of connecting points (seven segments) is unnecessary if it is not used because it can make the KPPS doubtful.

The suitability variable for the use of Sirekap in the Meranti Islands Regency has previously been carried out by the people of the Meranti Islands Regency in the 2020 Simultaneous Election, although many KPPS are still using Sirekap Mobile for the first time. As many as 28% of the KPPS who were questioned admitted to having experience in using Sirekap in the 2020 Simultaneous Election. The majority of Sirekap mobile users are people with an average age of 26 years. At that age, it is a group that is relatively accustomed to using technology, especially cell phones.

The use of Sirekap Mobile 2024 is considered commonplace for KPPS who live in areas with good internet network conditions, such as Tebing Tinggi District and West Tebing Tinggi District. In addition, Tebing Tinggi District is the capital of the Meranti Islands Regency, where the majority of the people are more accustomed to using technology. The high spirit and enthusiasm are more visible from Sirekap mobile users who live on the outskirts of Kepulauan Meranti Regency.

The use of Sirekap is actually in accordance with the needs of the community in Kepulauan Meranti Regency, especially election organizers at PPK and KPPS. Sirekap helps and facilitates election organizers at PPK and KPPS in recapitulating votes. The condition of the cellphone specifications mostly meets the standards requested by the KPU, and Sirekap can be implemented in Kepulauan Meranti Regency. The condition of the cellphone specifications is still not up to standard, for example, in Pulau Merbau District.

The geographical conditions of Kepulauan Meranti Regency, which consists of islands, have implications for the existence of several blank spot areas, but this does not hinder the use of Sirekap because it can still be used using the offline method. With the low economic conditions in Kepulauan Meranti Regency, the fulfillment of cell phones for Sirekap KPPS users has been met. However, there are still cell phones for Sirekap KPPS users that are below the specification standards requested by the KPU.

The use of cell phones with high specifications is a problem in society. The community, especially KPPS, who use Sirekap mobile, use their personal mobile phones to operate the technology. To adjust the application program, the latest mobile phone specifications are required. The use of mobile phones will also affect the quality of accurate and error-free data, thereby realizing election integrity. The government's support for maximizing the internet network is also a determinant of the suitability of Sirekap in the region. By using the internet, data enters the server faster and supports the realization of data transparency.

From the ease of technology variable, Sirekap in the 2024 Election is relatively easy to understand and easy to use. However, the difficulty lies in the installation of the application, registration, and initial login in Sirekap 2024. With the condition of the island region and some areas having weak internet networks or even no internet, Sirekap mobile users must find areas that have strong internet networks to register, activate, and log in to Sirekap.

Sirekap Election 2024 is considered easy to understand and use by 82% of KPPS questioned in the 2024 election. The remaining 18% of the total number of KPPS questioned said that Sirekap was difficult to use. Most of those who had difficulty did not have experience in utilizing Sirekap in the 2020 Simultaneous Election. The difficulty of utilizing Sirekap is due to the weak internet networks in each region. In general, KPPS's use of Sirekap Mobile 2024 in the Meranti Islands Regency is considered easy.

The Sirekap application trial in the 2024 Election conducted by the KPU was not just a regular trial. The KPU RI conducted a simultaneous trial nationally throughout Indonesia. One of the trials was carried out by means of a simulation as if imitating the conditions on the actual voting day. The simulation was carried out from the activity of distributing notification letters to voters to the process of using Sirekap by KPPS at TPS. The trial of using Sirekap was carried out 2 times on February 1, 2024, and on February 7, 2024. The trial activities carried out by the KPU RI and the election organizers were carried out three times. The first activity was the installation and activation stages of Sirekap. At the same time, the other two activities were trials of Sirekap, which carried out the process of utilizing Sirekap from start to finish. The trial carried out in the Meranti Islands Regency went smoothly, but there were several obstacles, such as communication with the KPPS and weak internet networks in several areas. The first Sirekap trial activity in Tebing Tinggi Timur District was largely unsuccessful because many KPPS could not log in

to Sirekap, but in the second trial, many were successful. The obstacle that occurred during the second trial was a failure to send images to the server.

The Sirekap KPPS operator prepared to conduct the trial by completing all the Sirekap trial requirements, such as Form C.Results. Several times, maintenance was informed by the KPU RI, causing the trial activity to be postponed. During the trial, the Sirekap KPPS operator was always in a position to prepare and monitor the WhatsApp group. When the maintenance was finished, they could continue the activity. In general, in the Meranti Islands Regency, there was an increase in the progress of the success of using Sirekap from the first trial to the second trial. The Sirekap application was also still in the refinement stage during the trial. The problem during the trial did not lie in the human resources in the region, even though in areas far from the capital of the Meranti Islands Regency, such as Rangsang District. The Sirekap Mobile KPPS operator in Rangsang District was very enthusiastic about the curiosity of using technology.

PPK divided the Sirekap Mobile KPPS operators into several zones to make it easier for them to reach places that had internet networks during the trial. PPS in each sub-district also helped coordinate and monitor every development of the trial by the Sirekap Mobile KPPS operators even up to 1 day before voting day. When the Sirekap Mobile operators were at home, PPS were also asked to keep up to date and to pay attention to ongoing training. In other conditions, such as in sub-districts that were far from the capital of Kepualan Meranti Regency and had weak internet networks, the trial did not go as expected. This was because many Sirekap Mobile KPPS operators could not access their accounts to log in to Sirekap Mobile. Thus, in the Sirekap trial in the 2024 Election, all stages and orders from the KPU RI were carried out properly by the KPU of Kepulauan Meranti Regency. The trial was carried out comprehensively, and one of the activities was conducted as if it were the actual voting day. This activity received a good response from the KPPS in Kepulauan Meranti Regency as the Sirekap operator. All ad hoc bodies work together in the trial activities, such as PPS, which does not have a role in the Sirekap application but still plays a role in maximizing the Sirekap trial.

However, the Sirekap trial activity only involved Bawaslu Kepulauan Meranti Regency once. In fact, this is an important application in the stages of voting, counting, and vote recapitulation. This means Panwascam, PKD, and PTPS also do not pay special attention to Sirekap. Several trials of the Sirekap application carried out at the sub-district to TPS never included Bawaslu Kepulauan Meranti Regency. To realize elections with integrity, especially in terms of the stages of voting, counting, and vote recapitulation, it should involve elements of election supervisors and the mass media. The professionalism of the KPU must also be a concern, considering its identity as an election organizer who must involve election supervisors in every stage.

The use of Sirekap in the 2024 Election is published and can be observed through the website https://pemilu2024.kpu.go.id/. The public can see the Sirekap results data on this page transparently and clearly. On the site, we can see Form C. TPS Results, D. Sub-district Results, D. Regency/City Results, D. Provincial Results, D. National Results and other supporting documents quickly. The public can see all types of elections, be it the Presidential and Vice Presidential Elections, DPD RI Elections, DPR RI Elections, Provincial DPRD Elections, and Regency/City DPRD Elections.

With the results of Sirekap published on the page https://pemilu2024.kpu.go.id/, it should be able to make public access to information easier. In addition, the KPU has prioritized the principle of transparency so all parties can quickly get the results of the 2024 Election. Likewise, political parties should be able to use this data to compare the data they receive from witnesses. Political Parties that do not place witnesses at TPS can also use this site as an alternative.

It turns out that there are still Political Parties in the Meranti Islands Regency who do not know that the results of the Sirekap photos go directly to https://pemilu2024.kpu.go.id/. To obtain election results, the Party prefers to collect copies of Form C. Results from witnesses. The national chaos regarding Sirekap made the Gelora Party choose not to observe Sirekap and prefer to use its own application. New non-parliamentary political parties, such as the Ummat Party in the Meranti Islands Regency, observe the election results directly at the TPS. They do not have witnesses at the TPS who are mandated to monitor the vote-counting process. Because they do not have witnesses, they also do not have a copy of Form C. Results. The pattern they follow is only to see the vote acquisition directly at the TPS, which is expected to win a lot of votes without paying attention to the vote acquisition at https://pemilu2024.kpu.go.id.

The Golkar Party in the Meranti Islands Regency knows about the Sirekap work system. Sirekap is used as comparative data with the copy of Form C. Results that they get from witnesses in seeing the vote acquisition they get. Even so, the Golkar Party in the Meranti Islands Regency still uses a copy of Form C. Results are used as a reference for the vote acquisition. Sirekap is also used as backup data when the party has not received a copy of Form C. Results at several TPS.

From the observation of the Hanura Party in the Meranti Islands Regency, they also saw the results from https://pemilu2024.kpu.go.id but still collected a copy of Form C. The results were obtained from witnesses. If there is an error, it is not something significant and can be corrected during the plenary session in the sub-district. The Hanura Party of the Meranti Islands Regency ordered the lower management ranks to pay attention to the use of Sirekap below. The PPP also noted that the use of Sirekap at the Regency level was also quite good. Party administrators who attended the plenary session could see the results of the vote count directly on the screen during the plenary session. The PPP also understands that the use of the Sirekap photo results is directly connected to https://pemilu2024.kpu.go.id. Although the progress is slow, the PPP still looks at https://pemilu2024.kpu.go.id to monitor the vote count.

Everyone can observe the Sirekap results on the 2024 election publication site. All people can access the page and see the vote acquisition data up to the scan of Form C.Results, thus making the transparency of data in the election good. Political parties mostly make good use of Sirekap 2024. However, there are several political parties that do not observe the Sirekap results for various other reasons. With the existence of Sirekap, the KPU prioritizes the values of efficiency and transparency so as to support increasing election integrity.

The use of Sirekap in the 2024 election has differences, which include the maximization and improvement of the Sirekap application for the 2020 Simultaneous Elections. The biggest system innovation is the reading pattern of the type of presidential and vice presidential elections that use the OMR system. The use of Sirekap in the Meranti Islands Regency has been appropriate from the perspective of its users and the fulfillment of its devices. The use of Sirekap is relatively easy to understand. In general, this application can be tried in the Meranti Islands Regency even though some areas have limited networks, both with online and offline methods. The recapitulation results can be seen well by the public as initial data for comparison.

Technological innovations such as cellphone specifications and Form C writing patterns. The results must be guaranteed in legal certainty so that the implementation of policies is in accordance with the rules. This is related to the quality of the data produced so as to provide legitimacy to the community. If the legitimacy of the community is damaged, it can create polarization in the community. Cellphone specifications should also pay attention to the capabilities of the community and the distribution of internet networks that must be equipped by the government to ensure the efficiency and transparency of data. The attitude of professionalism in carrying out the role must also be strengthened by election organizers so as to realize elections with integrity. The openness of public information in accessing the election results publication page must be maintained to ensure quality elections.

b. Sirekap Communication Channels at the Meranti Islands Regency KPU in the 2024 Election

Sirekap communication has been carried out by the Meranti Islands Regency KPU. The delivery is not only about the Sirekap concept but also the technical implementation in the field. Communication is carried out to all ad hoc bodies of the Meranti Islands Regency KPU, Bawaslu, and political parties in the Meranti Islands Regency. All stakeholders in the Meranti Islands Regency know that Sirekap is only a recapitulation tool and publication tool so as to prevent miscommunication.

The Meranti Islands Regency KPU did not involve the community in the Sirekap innovation communication, so there is the potential for misunderstandings (misperceptions), which will have a negative impact on the election. Public misunderstanding of Sirekap could lead to the problem of first-level election malpractice, as conveyed by Norris, which resulted in massive popular protest movements, mass riots, violence, and deaths because this was related to the election results.

Communication with the Meranti Islands Regency community leaders was never carried out, even though this is an important element. The principle of openness and effectiveness in terms of Sirekap technology communication was not carried out optimally because it did not invite the community. Providing opportunities for various parties to participate in the election is a value of election integrity. Sirekap is actually used by the public so that they can find out the election results, so if they do not invite the public, it is considered not on target.

c. Time

Sitemap has been used twice by the people of Kepulauan Meranti Regency. First in the 2020 simultaneous elections and second in the 2024 General Election. All ad hoc bodies at the KPU Kepulauan Meranti Regency welcomed the use of technology in elections. The sacrifice of time made by the Sirekap operators of the ad hoc bodies was very large. Almost every day since it was tried until the voting day, each operator practiced operating the Sirekap 2024 application. The understanding of the ad hoc bodies in Kepulauan Meranti Regency, especially the Sirekap KPPS operators, was quite fast. In a short time, the Regency KPU had to provide an understanding of the application to the many Sirekap users. Adaptation of Sirekap technology does take time. This time is used to master the use of Sirekap technology. The faster the operators understand, the better it is in terms of time efficiency, but it does not necessarily guarantee effectiveness and accountability. Too little time is given to mastering the Sirekap technology that has just been used by the KPPS, which will affect accountability and impact election integrity. The balance between efficiency and effectiveness must be maintained so that it does not become something bad for elections in Indonesia.

d. Social Systems

Most people in various sub-districts of the Meranti Islands Regency know about the Sirekap application and the page https://pemilu2024.kpu.go.id/ even though they are not actively involved in the election either as election organizers, election supervisors, or election participants. Most of these people gave a positive response to Sirekap. Most of the community's knowledge about Sirekap is obtained from social media, WhatsApp, and friends' chats.

The social system formed to solve problems in using the application is fellow Sirekap users in the Meranti Islands Regency. This social system was formed because of concerns about errors or mistakes in using Sirekap. The Meranti Islands Regency KPU and PPK throughout the Meranti Islands Regency created a WhatsApp group to share and find solutions to every problem. The group that was created was coordinated by the Meranti Islands Regency KPU and filled by all Sirekap users. The formation of this social system was due to a sense of responsibility for the tasks that had been given.

Most of the ad hoc election organizer bodies, election supervisors, political parties, and the community also responded well to the use of Sirekap in the Meranti Islands Regency. With Sirekap, the public can immediately and easily find out the election results. Sitemaps, which can be accessed by everyone, create an openness of information

that can be accessed by the public. Various backgrounds and professions, from civil servants to the private sector, entrepreneurs, and even other workers, can access Sirekap easily, and this shows that the public is quite reactive to Sirekap in the Meranti Islands Regency. Information about Sirekap also reaches all sub-districts in the Meranti Islands Regency, thus ensuring openness of public information and data transparency to realize election integrity.

CONCLUSION

The Sirekap Innovation Diffusion Process in Kepulauan Meranti Regency went quite well by conveying innovations that supported Sirekap. Supporters of Sirekap, such as HP regulations and writing Form C. Results do not yet have a clear legal umbrella, so there is no legal certainty. Sirekap users in Kepulauan Meranti Regency are dominated by young people and have standard cell phones, but the problem is that the internet network has not been evenly distributed by the government, even though Sirekap can be used offline.

The difficulty of the application is at the beginning of registration and login, so a lot of time is wasted on non-substantive things during the counting and recapitulation of votes. The trial went quite smoothly, but the KPU of Kepulauan Meranti Regency was unprofessional because it did not involve Bawaslu in the trial. The openness of public information and transparency of election result data went well in realizing election integrity.

Communication was carried out with all stakeholders except the community, even though the community is an important element in the election. Without involving the community in the Sirekap socialization process, the socialization became ineffective because it was not on target. Because, in reality, the people who see the election results are the community. User mastery of Sirekap technology is relatively fast, but a balance must be made between time efficiency and effectiveness because it will impact the accountability of election organizers. The social system that is formed is based on election organizers' sense of responsibility for the tasks that have been given to them. Election organizers, election supervisors, and election participants mostly responded positively to the use of Sirekap in the Meranti Islands Regency. The community, as an element that is not directly involved with Sirekap, also gave a good response by actively accessing Sirekap on the 2024 election results publication page, thus facilitating the openness of information and transparency of election result data to realize election integrity.

RECOMMENDATION

In an effort to support the optimization of Sirekap, the government should facilitate equipment such as mobile phones. This is related to the ability of mobile phones to operate the Sirekap application and the quality of the image results. The most important thing is to massively communicate the Sirekap innovation to the general public face-to-face or through social media so that there is no misunderstanding (misperception) that will have a negative impact on the election in Indonesia. The KPU must also ensure that the message that Sirekap is only a tool to assist recapitulation and publication reaches the public so that there are no attempts to discredit the integrity of the KPU.

REFERENCES

Abbas, I. (2024). *Menuai Kritik, Bawaslu Minta KPU Jelaskan ke Publik soal Kendala Aplikasi Sirekap*. Viva.Co.Id. https://jatim.viva.co.id/kabar/10975-menuai-kritik-bawaslu-minta-kpu-jelaskan-ke-publik-soal-kendala-aplikasi-sirekap

Adams, S., & Asante, W. (2022). *Biometric election technology, voter experience and turnout in Ghana*. *21*(1). http://www.africanelections.org/

Agus, R. (2018). *KPU Diminta Terapkan Teknologi Informasi dalam Penghitungan Suara*. https://kabar24.bisnis.com/read/20181217/15/870373/kpu-diminta-terapkan-teknologi-informasi-dalam-penghitungan-suara

Akbar, P., Pribadi, U., & Purnomo, E. P. (2020). Faktor-Faktor yang Mempengaruhi Kinerja Pegawai dalam Penerapan Sidalih di Komisi Pemilihan Umum Daerah Istimewa Yogyakarta. *Analitika*, *12*(1), 1–9. https://doi.org/10.31289/analitika.v12i1.3350

Alam, A. S., & Sultan, M. I. (2016). *Keterbukaan Informasi Publik melalui Sistem Penghitungan (SITUNG) Online Hasil Pilkada terhadap Pengetahuan, Sikap dan Perilaku Masyarakat di Kota Palu*. *5*(1), 92–103.

Amaliyah, S. (2024). *Dua Hari Jelang Pencoblosan, KPPS Sejumlah Daerah Keluhkan Aplikasi Sirekap*. NU.Or.Id. https://nu.or.id/nasional/dua-hari-jelang-pencoblosan-kpps-sejumlah-daerah-keluhkan-aplikasi-sirekap-U5rv6

Arya Fernandes August Mellaz. (2019). Serial Evaluasi Penyelenggaraan Pemilu Serentak 2019 Perihal Refleksi Pemilu Serentak 2019. *Jakarta: Bawaslu, December*.

Cheeseman, N., Lynch, G., & Willis, J. (2018). Digital dilemmas: the unintended consequences of election technology. *Democratization*, *25*(8), 1397–1418. https://doi.org/10.1080/13510347.2018.1470165

Demo, Y. (2024). *Forum BEM Se-DIY Temukan 2.447 Anomali Data Sirekap Diduga Gelembungkan Suara Paslon Tertentu*. News.Okezone.Com. https://news.okezone.com/read/2024/02/21/510/2973558/forum-bem-se-diy-temukan-2-447-anomali-data-sirekap-diduga-gelembungkan-suara-paslon-tertentu

Ekowati, E. Y. (2019). *Implementasi Kebijakan Silon : Pendaftaran , Penelitian , dan Penetapan Anggota DPRD Surabaya 2019 Perspektif Integritas Pemilu Silon Policy Implementation : Registration , Research , and Determination of 2019 Surabaya Regional Parliament Members Election*. *5*(4), 1–11.

Feisal, R. (2024). *Fraksi PKS minta KPU evaluasi penghitungan suara Sirekap*. Antaranews.Com. https://www.antaranews.com/berita/3970017/fraksi

-pks-minta-kpu-evaluasi-penghitungan-suara-sirekap

Femiliona, F. (2021). Usaha KPU Mempertahankan Prinsip Transparansi pada Proses Pencalonan melalui Sistem Informasi Pencalonan (SILON). *Jurnal PolGov*, *2*(2), 277–319. https://doi.org/10.22146/polgov.v2i2.1679

Garnett, H. A., James, T. S., & Macgregor, M. (2022). *Electoral Integrity Global Report 2019-2021*. *July*, 1–44. http://www.electoralintegrityproject.com

Isiaq, A. A., Ambali, A., & Olayinka, I. A. (2018). Election, Technology and Voter Turnout in Nigeria's Fourth Republic : A Study of 2015 Kwara Gubernatorial Election Isiaq, Atanda Abdulwaheed Ambali, Abdulrauf Olayinka, Isiaka Akeem. *Journal of Management and Social Sciences*, *7*(1), 327–344. www.fountainjournals.com/index.php/fujmas/article/view/200/92

Kawima, E., & Harling, M. C. Van. (2021). *Peta Jalan Sirekap Pemilu 2024 : Upaya Menerangi Lorong Gelap Untuk Menjamin Transparansi dan Akuntabilitas Hasil Pemilu dan Pemilihan*. Komisi Pemilihan Umum.

Lee, A., Partono, S., & Udi, K. P. (2017). *Inovasi Pemilu: Mengatasi Tantangan, Memanfaatkan Peluang* (p. 186).

Luxiana, K. M. (2024). *PSI: Sirekap KPU Penting, Harus Dilanjutkan*. News.Detik.Com2. https://news.detik.com/pemilu/d-7206965/psi-sirekap-kpu-penting-harus-dilanjutkan

Mahpudin, M. (2019). Pemanfaatan Teknologi Pemilu Di Tengah Era Post Truth: Antara Efisiensi dan Kepercayaan. *Jurnal PolGov*, *1*(2), 157. https://doi.org/10.22146/polgov.v1i2.55886

Mochtak, M., Lesschaeve, C., & Glaurdić, J. (2021). Voting and Winning: Perceptions of electoral integrity in consolidating democracies. *Democratization*, *28*(8), 1423–1441. https://doi.org/10.1080/13510347.2021.1918111

Muliawati, A. (2024). *KPU Jelaskan Alasan Penghentian Sementara Rekapitulasi Pemilu 2024*. News.Detik.Com. https://news.detik.com/pemilu/d-7201644/kpu-jelaskan-alasan-penghentian-sementara-rekapitulasi-pemilu-2024

Pratama, H. M., & Salabi, N. A. (2020). Panduan Penerapan Teknologi Pungut-Hitung di Pemilu: Buku Panduan untuk Indonesia. In *Panduan Penerapan Teknologi Pungut-Hitung di Pemilu: Buku Panduan untuk Indonesia*. https://doi.org/10.31752/idea.2020.28

Rachmadina, R. (2024). *Suara 02 Menjulang di Sirekap, Gerindra: Curang Tidak Bisa Dilakukan di Sistem Sirekap*. Kompas.Com. https://megapolitan.kompas.com/read/2024/02/16/15380731/suara-02-menjulang-di-sirekap-gerindra-curang-tidak-bisa-dilakukan-di

Rahayu, D. T. (2018). *SIPOL Dalam Proses Pendaftaran Peserta Partai Politik*. *April 2018*, 181–202. https://www.bagi-in.com/jumlah-penduduk-di-indonesia/,

Ramadhanil, F., Pratama, H. M., Nurul Amalia Salabi, & Sadikin, U. H. (2019). Evaluasi Pemilu Serentak 2019 : Dari Sistem Pemilu Ke Manajemen Penyelenggaraan Pemilu. In *Jurnal Renaissance* (Vol. 4, Issue 01). https://perludem.org/wp-content/uploads/2020/02/Buku-Evaluasi-Pemilu-Serentak-2019-Dari-Sistem-ke-Menejemen-Pemilu.pdf

Ricky, R. (2022). Pengembangan studi tentang pemilu dan digitalisasi secara global dan tantangannya di Indonesia: Analisis Bibliometrik. *Musamus Journal of Public Administration*, *4*(2), 132–139. https://doi.org/10.35724/mjpa.v4i2.4123

Sinambela, N. M. (2024). *KPU terima surat PDI Perjuangan soal audit forensik digital Sirekap*. Antaranews.Com. https://www.antaranews.com/berita/3974958/kpu-terima-surat-pdi-perjuangan-soal-audit-forensik-digital-sirekap

Stockemer, D. (2018). The Internet: An important tool to strengthening electoral integrity. *Government Information Quarterly*, *35*(1), 43–49. https://doi.org/10.1016/j.giq.2017.11.009

Suwanti, N. C. (2024a). *Golkar soal Audit Sirekap: Silakan, Tidak Ada Kekuatan Hukum dan Tidak Berdampak pada Penghitungan*. Kompas TV. https://www.kompas.tv/nasional/487205/golkar-soal-audit-sirekap-silakan-tidak-ada-kekuatan-hukum-dan-tidak-berdampak-pada-penghitungan

Suwanti, N. C. (2024b). *PKB Kecewa dengan Teknologi Sirekap: padahal Anggaran Besar dan Diagung-agungkan KPU*. Kompas TV. https://www.kompas.tv/nasional/487204/pkb-kecewa-dengan-teknologi-sirekap-padahal-anggaran-besar-dan-diagung-agungkan-kpu

Tarouco, G. (2023). Varieties of Electoral Integrity Risk: Protecting Elections in Brazil - Case study. *Varieties of Electoral Integrity Risk: Protecting Elections in Brazil - Case Study*, *September*. https://doi.org/10.31752/idea.2023.50

Winburn, J. (2020). Review of Electoral Integrity in America: Securing Democracy. *American Review of Politics*, *37*(1), 161–162. https://doi.org/10.15763/issn.2374-779x.2020.37.1.161-162

Zaman, M. I. (2024). *Kekeliruan di Sirekap, KPU: Tak Ada Niat Manipulasi, Tak Ada Niat Ubah Suara*. NU.Or.Id. https://www.nu.or.id/nasional/kekeliruan-di-sirekap-kpu-tak-ada-niat-manipulasi-tak-ada-niat-ubah-suara-P0CHt