Analysis of 2024 General Election Digitalization System as An Effort to Improve The Quality of Democracy in Indonesia

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Received: 25 May 2023; Revised: 11 June 2023; Accepted: 21 June 2023

Abstract
In carrying out the stages of holding the 2024 General Election, KPU uses digital application systems. The purpose of this research is to describe and analyze the strengths and weaknesses of implementing the digital application systems. Researchers studied primary data of general election laws and KPU regulations, and secondary data of some books and relevant electoral journal articles. They also explored empirical data from the Commissioners of KPU of Kediri Regency. In analyzing the data, researchers used Miles and Hubberman's theory. The results of this study show that the eight digital application systems used by KPU, namely: Sipol, Sidalih, Silon, Sidapil, Sidakam, Sirekap, Silog, and Siakba make a very large contribution to every stage of the 2024 General Election so that they become more effective, efficient, transparent, accurate, and up to date. Common weaknesses occur when data transmission is carried out simultaneously at one time, it has possibility problem for data traffic because the size of the server may not sufficient; second, the internet network is not evenly distributed throughout Indonesia; and third; not all of the human resources for general election organizers at the lower levels are capable of operating the digital system properly. To improve the quality and to get the maximum results of election, general election organizers need to anticipate closing the gaps in digital application system deficiencies in holding the 2024 general election in Indonesia.

Keywords: digital application system, general election

Introduction
General election in Indonesia is an implementation of democracy which aims to elect people's representatives, regional representatives, and the president and vice president (Prasetyo Wibowo et al., 2022). Democracy in Indonesia has developed rapidly from time to time, which can be seen from the development of regulations from election to election (Zuhri, 2018). Besides that, technological developments require changes in various election administration techniques (Alifia Silvi Fatiha et al., 2022).

Along with the development of information and communication technology, the process of holding elections has undergone a transformation from manual - conventional election management to digital – modern management (Lubis et al., 2022). Digitizing election administration provides many benefits, including: the stages become more effective and efficient, election results can be well documented, transparent, and easily accessible to the public (Hardiyanti et al., 2022). Thus, digitizing elections will provide convenience to election administrators, election participants and voters, so that they are believed to be able to improve the quality of democracy (Banjarnahor & Togatorop, 2022). The digital application systems used by the KPU to support the smooth running of the 2024 general election process above is attached to the election stages because basically the digital application system is a tool so that the stages run faster, more accurately, and more effectively (Juaningsih et al., 2020).

In connection with the explanation above, the digital application systems used by KPU to handle the 2024 general election has never been studied comprehensively. Previous researches...
were only carried out partially. Therefore, this study aims to describe and analyze the strengths and weaknesses of digital application systems that are being and will be used at every stage of the election administration for the 2024 general election in Indonesia.

Materials and Method
Researchers examined various primary materials of general election laws and regulations of the General Election Commission (KPU) (Zairudin et al., 2022). Researchers examined the stages of holding general election and examined various kinds of information technology applications that can be applied at each stage of the 2024 general election. In addition, researchers examined the secondary materials of relevant election reference books and articles. In analyzing the research data, the researcher used the flow or mechanism from Miles and Hubberman's theory: data collection, data reduction, data display, and conclusion drawing.

Results and Discussion
In the process of holding the 2024 general election, adequate electronic facilities are needed so that the election process can be more effective and efficient. For this reason, the KPU uses 8 (eight) digital/electronic application systems, namely: Political Party Information System (Sistem Informasi Partai Politik (Sipol)), Candidacy Information System (Sistem Informasi Pencalonan (Silon)), Electoral District Information System (Sistem Informasi Daerah Pemilihan (Sidapil)), Voter Data Information System (Sistem Informasi Pendaftaran Pemilih (Sidalih)), Campaign Fund Information System (Sistem Informasi Dana kampanye (Sidakam)), Electronic Recapitulation Information System (Sistem Informasi Rekapitulasi Elektronik (Sirekap)), Logistics Information System (Sistem Informasi Logistik (Silog)), and Information System for KPU Members and the Adhoc Agency (Sistem Informasi Anggota KPU dan Badan Adhoc (Siakba)).

In general, the eight digital application systems implemented for the 2024 general election provide many conveniences for election organizers, especially the KPU and all of its staffs. The process of organizing elections becomes more effective because administrative data is well organized and documented (Diniyanto & Sutrisno, 2022). The work of verifying documents/files becomes easier and decisions based on digital documents are of course also more accurate. Broadly speaking, the use of digital applications is very helpful for the KPU in carrying out the election administration process. Besides that, the KPU digital application makes it easier for other related parties in the process of holding elections. Although the election information system initiated and prepared by the KPU does not yet have a strong legal law because it is a product of KPU regulations which are not mandated by election law, with the exception of the voter data information system (Shobahah & Rifai, 2021), the KPU has a policy to use an information application system at every stage of the election so that the holding of elections is more effective, efficient, transparent and accountable (Winarto et al., 2022).

Political Party Information System (Sipol)
Article 13 KPU Regulation Number 4 of 2022 states that in order to register political parties as election participants, political parties are required to fill in data by uploading the required documents through the Sipol application. First, political parties fill in the data and documents for liaison officers and the Sipol administrative staffs. The data and documents of the liaison officer in question are identity data, such as: name, NIK, KTA number, place and date of birth, address, and other identity data. Second, political parties upload political party data documents, permanent office data, political party membership data, and other supporting data required and needed by the KPU for administrative and factual verification purposes.

For the purpose of verifying membership administration, Sipol can be used to verify multiple memberships. Multiple membership data will be detected automatically, both internally with political parties and with multiple memberships with other election candidate political parties. If multiple membership occurs within a political party, then only one membership data is recognized, while the remaining duplicate data is declared as Not Qualifying (Tidak Memenuhi Syarat (TMS)). However, if multiple membership occurs between political parties, then the political party that claims the data is a member of their party, then the political party is asked to make a statement. And if each political party claims membership to
each other, the KPU will clarify this by bringing together each political party.

What makes Sipol so easy for party officials in the regions is that all data is centralized, that all data input comes from political parties at the central level. In this way, political parties at the regional level no longer need to bother uploading management, office and membership data. KPU conducts administrative verification of all required documents submitted by election contesting political parties, including checking for duplicates membership of political parties, both multiple within one party and multiple membership with other parties. Political parties that have been declared to have passed administrative verification by the KPU, followed by factual verification. Factual verification is carried out on the management of political parties according to their level, the permanent office of the management of political parties according to their level, and membership of 1000 or 1/1000 of the population in management at the district/city level. Political parties that have passed administrative verification and factual verification nationally are designated as political parties participating in the 2024 general election. On the other hand, political parties that are declared not to have passed administrative verification by the KPU cannot continue factual verification. Political parties that pass administrative verification continue with the factual verification stage, but if a political party is declared not to have passed factual verification then the political party will fail to participate in the 2024 general election.

Based on the data verification verified by KPU, TMS data can be caused by many factors, for example: people have died, have entered civil servants, military, police, and other civil servants and have worked in institutions that prohibit being a member of a political party. However, it also found that political party membership data that TMS is caused by profiteering names. The profiteering of names is known during factual verification, the person concerned declares that he is not a member of the political party as intended. A person whose name is included in the membership list of a particular political party has never known, has never been confirmed, and has never given his approval that he is willing to become a member of a political party. Of course this is detrimental to the party whose name is recorded as a member of a political party because they will face problems when the person concerned registers for work and others at an institution that requires not being a member of a political party. If the person concerned cannot accept the act of profiteering and feels aggrieved as a result of that action, then that person has the right to file a criminal complaint to court.

Because there are consequences for someone whose name is smeared as a member of a political party, the KPU provides a portal to check membership of political parties. someone whose name is in Sipol who is claimed to be a member of a political party, his name will appear when checked using the portal provided by the KPU. How to check whether a person's name is a member of a political party or not with the following steps: a) open the https://infopemilu.go.id; b) select the "check political party members" menu; c) enter the identification number (NIK) in the column provided; d) check the column "I'm not a robbot"; then click "search". The system will match the NIK entered by the community with the data in the Sipol. If his name is listed in Sipol, it is certain that his name will appear. Conversely, if the name is not included in the Sipol, then the name will not appear. What if someone's name appears while the person is not a member of that political party? It is often found that people whose names are used by political parties are included in Sipol, these people do not know at all. The portal for checking whether a person's name is a member of a political party or not has been socialized frequently by the KPU. The public can check whether their name has been used as a member of a political party or not by using the website. If the community really is not a member of a political party but their name is listed in the Sipol as a member of a particular political party, then the community can provide a response. Regency/ Municipal KPU will facilitate the community and political party leaders. Furthermore, the political party removed the name from the membership of the political party. Empirically, up to November 2022, around 100 people submitted reports to the Kediri Regency KPU that their names were listed as members of certain political parties while they had never been contacted, registered or registered as members of a political party. KPU of Kediri Regency has succeeded in facilitating and completing the community report.

**Voter Data Information System (Sidalih)**

Sidalih is an electronic application system used by the KPU to update voter data on an
ongoing basis and as a means of information for the public so they can check whether they have been registered as election voters. With electronic aids, it is expected that election voter data will be accurate and up-to-date. The principles used by the KPU in implementing the election voter list preparation program are comprehensive (covering all Indonesian and foreign citizens), inclusive (involving many institutional elements, ministries, local governments, and other related parties), accurate (covering correct voter information, complete, and accountable), up-to-date (based on the latest, or most recent information), open (to all eligible voters), responsive (providing opportunities for responses and responding to questions), participatory (opening oneself as wide as possible) broad to all to propose voter data in the preparation of voter lists, accountable (all data can be accounted for), personal data protection (providing protection of basic civil rights as citizens for the privacy of their personal data), and accessible (providing convenience in accessing data at the time of updating and compiling the voter list).

In order for the above principles to be fulfilled, in updating voter data, election organizers are assisted by Sidalih, because this electronic voter list application is able to identify voters, including: automatically being able to detect multiple voters so that no voter is registered on more than one voter list, automatically able to detect invalid NIK, automatically able to detect voters who are not yet 17 years old, and automatically able to detect names registered in the voter list that do not meet the requirements so that they can be crossed out from the voter list. From the voter's point of view, it is easy to detect whether he has been registered or not. Even though voter registration has gone through a long process, starting from the DPS, DPSHP, and DPT, the voter lists are still not accurate. The electronic voter list application is able to answer this problem.

Even though a voter who is not registered on the DPT can exercise his right to vote one hour before voting ends, every voter is supposed to be registered on the DPT. If up to the determination of the DPT, a person or the public does not know whether their name has been registered in the DPT or not, the public can check themselves using the “lindungi hakmu” web provided by the KPU. There are 2 ways to check whether the name has been registered in the DPT or not. After opening the “lindungi hakmu” web, click the city/district where the person is come from and enter the residence number (NIK) or select the district / city, write the name and date of birth according to the KTP. If a person has been registered in the DPT, then his name will appear as a voter at the designated TPS. Conversely, if a person has not registered in the DPT, the data will not appear.

Candidacy Information System (Silon)

Candidacy Information System (Silon) is an electronic application system that is used for the purposes of the nomination process in elections. For the purposes of the nomination of DPD members, Silon has been opened prior to candidate registration. Thus, prospective DPD members must first upload the support requirements to the Silon application to carry out administrative verification by the Provincial KPU and factual verification by the Regency / City KPU whose support address is in the district or city in question. If after administrative verification by the Provincial KPU, and factual verification by the Regency/City KPU and passed, then the prospective DPD members can register as candidates for DPD members together with the candidates for members of the DPR and DPRD, as well as pairs of candidates for President and Vice President. With Silon, organizers' work is more effective and efficient and the level of accuracy is much higher.

All the documents required for the completeness of the candidates' documents, the determination and announcement of DCS up to the announcement and determination of the DCT for members of the DPR, Provincial DPRD and Regency / City DPRD are in the nomination information system application (Silon). Thus, in addition to assisting the candidacy verification process from start to finish, Silon also stores administrative documents on candidacy for members of the DPR, Provincial DPRD, and Regency/City DPRD which can be easily opened and viewed at any time needed. All candidature mechanisms, starting from submitting files, administrative verification, and data-based factual verification, to determining the candidate or pair of candidates use the Silon application. With Silon, election organizers, political parties, candidates or pairs of candidates are greatly assisted because all nomination processes become more practical, easier, and can be well documented at all stages of the nomination process.
Campaign Funding Information System (Sidakam)

One of the stages of the election is the campaign. An election campaign is actually similar to an advertisement showing a certain product to influence consumers to buy that product. Likewise with the election campaign, with the offer of an attractive vision, mission and work program to voters so that voters choose themselves, be it a candidate, candidate pair or political party in order to get as many votes as possible in the election ballot so that they can be declared the winner of the election, winning the most seats, the elected candidate or pair of candidates, and so on.

In organizing an election campaign, of course, requires campaign funds. Election campaign funds can come from political parties, candidates or pairs of candidates, and contributions from other parties that are legally binding. Contributions from other parties can come from individuals, groups, companies, and non-governmental business entities. The name of the donor must be clearly identified and reported to the KPU.

Candidate pairs for President and Vice President, Political Parties Contesting for Members of the DPR, Provincial DPRD, and Regency / City DPRD, and individual DPD Member Candidates must submit initial reports and election campaigns and special election campaign fund accounts using the Campaign Fund Information System (Sidakam). After the election is over, the Presidential and Vice-Presidential Candidate Pairs, Political Parties Contesting for Members of the DPR, Provincial DPRD, and Regency / City DPRD, and individual DPD Candidate Members again report receipts and expenditures of campaign funds to the KPU according to their level through Sidakam application. Furthermore, campaign finance reports submitted to the KPU according to their level through Sidakam will be audited by a public accountant appointed by the KPU according to their level. Thus, the designation of Sidakam as a tool used by the KPU and election participants to facilitate the delivery of campaign finance reports and facilitate auditing of campaign funds. If the audit has been carried out by a public accountant, the KPU according to its level will announce it to the public.

Electronic Recapitulation Information System (Sirekap)

The culmination of a general election is the voting and counting of votes. Basically general elections are democratic processes that begin with the process of registration, verification and determination of general election participants, then the process of registration, verification and determination of candidates and pairs of candidates, and the process of carrying out election campaigns, and ends with the process of voting and counting votes. It is this final process that determines the elected candidate or pair of candidates. Thus, with the completion of the process of voting, counting, recapitulation, and determining the elected candidate or pair of candidates, the general election stage is over.

In the 2024 general election, the Situng application system will no longer be used because the KPU uses a new system which is an improvement from Situng, namely the Vote Count Recapitulation Information System (Sirekap). This sirekap has been tried during the 2020 regional elections. The Sirekap has proven to be very successful. Technically, for each polling station, there is one member of the Voting Organizing Group (KPPS) who is assigned as the Sirekap operator. The data source used is the result of vote counting in the form of a plano, which is then photographed using the Sirekap application. After appearing on the screen, the vote counting data is matched between the data on the cell-phone screen and the vote counting data on the plano. If the writing is not of a good standard, then it is possible that there are differences in the vote counting data on the cell-phone screen and the counting data on the vote counting results plano. If there are discrepancies in the data, corrections will be made in the presence of all witnesses and TPS supervisors. If the data for counting votes on the cell-phone screen is correct then the data is uploaded using the Sirekap application. Uploaded data will automatically recap in stages up to the KPU RI central level. If all the data on the results of the vote count in plano from all regions of Indonesia have been uploaded, then the national election results can be known on the same day. With Sirekap, election results can be known in real time without having to wait for days which results in public anxiety waiting to see who will win the election. However, official election results use manual vote counting and recapitulation which is carried out in stages.
Electoral District Information System (Sidapil)

In elections there is the term electoral area (dapil). Electoral districts are territorial units based on population to determine seat allocation. The electoral districts for the election of the president and vice president are the entire territory of Indonesia. Thus the electoral district does not need to be counted because it covers the entire territory of Indonesia. Likewise, the DPD electoral districts are provinces that do not require calculations because it has been stipulated in the election law that each province has 4 (four) seats for candidates for DPD members to contest.

KPU Formulates electoral districts by taking into account the principles of equal value of votes, adherence to a proportional election system, proportionality, territorial integrity, being within the same area coverage, cohesiveness, and continuity. First, the principle of equality of value is an effort to increase the value of votes or equal seat prices between one electoral district and another with the principle of one vote one value; second, the principle of adherence to the proportional election system is adherence in the formation of electoral districts prioritizing a large number of seats so that the percentage of party seats obtained is equivalent to the percentage of valid votes acquired; third, the principle of proportionality is that the allocation of seats for each electoral district is equal to the number of seats for other electoral districts; fourth, the principle of regional integration is the unity and integration of regions within one electoral district; fifth, the principle of one coverage area is the arrangement of the electoral districts of the Regency/City DPRD formed from one or several sub-districts which are entirely included in one electoral area of the Provincial DPRD; sixth, the principle of cohesiveness is the arrangement of electoral districts by taking into account history, socio-cultural conditions, customs and minority groups; and seventh, the principle of continuity is the arrangement of the electoral districts by taking into account the electoral districts in the previous election, unless there is a change in conditions so that the arrangement of the electoral districts must be renewed.

To map the Dapils and the number of seats for Regency/City DPRD members, it is also based on the population of each Dapil. It is very possible to change the electoral electoral area for members of the Regency/City DPRD before the holding of elections, depending on the development of the population and also suggestions from election participants at the district/city level. If there is no proposal for a change in Dapil from election participants in the district/city, then the Dapil for the previous election will be used again for the next election. Likewise, a change in the number of allocated seats is only possible for a significant increase in the population so that an additional number of seats is usually obtained in accordance with the provisions that have been set.

Sidapil is indeed more beneficial to the KPU in assisting with the mapping of electoral districts and the allocation of seats for members of the DPR and DPRD. However, actually the public also has an interest in knowing who the legislative candidates are in their electoral district. Thus, the Sidapil system will be more able to provide benefits if the community has the opportunity to access candidates in their Electoral District, it will be even better if Sidapil is connected to Silon, so that candidates, both members of the DPD, DPR, Provincial DPRD. The Regency/Municipal DPRD in each Electoral District can be accessed directly by the public. For this reason, the function of Sidapil needs to be improved for the next election.

Logistics Information System (Silog)

Every time a general election is held, there are various kinds of logistical needs, especially at polling stations (TPS), which are so many and complicated. For this reason, election organizers must carefully calculate the logistics needs at each polling station. The logistics needed include: 5 ballot boxes for the ballots for the DPR, DPD, President and Vice President, Provincial DPRD, and Regency / City DPRD and various types of envelopes needed, around 4 ballot booths, ballots for a number of voters in the DPT plus 2 %, final voter list (DPT) at the TPS, final candidate list (DCT), official report forms and other forms. Besides that, there are other logistical needs, including: ink, seals, markers, ballpoint pens, glue, rubber bands, punching tools, pads, straps, padlocks, keys, and many other logistical needs that must be mapped out precisely.

To map the logistics needs of the election, KPU uses a Logistics Information System (Silog). Silog is an electronic application system that is used by the KPU to map the logistics needs of the election which can automatically recapitulate the logistics needs so that it can speed up the process of
mapping logistics needs more accurately. This system can work well by requiring accurate basic data. After the basic data is entered, the system will work and calculate each type of logistical need, especially at the TPS.

In the Silog, the election organizer uploads the required data, including: the number of voters registered on the DPT, the number of DCT members of the DPR, Provincial DPRD, and Regency/City DPRD. By uploading the basic data needed, Silog will automatically recap all logistics needs at TPS. In the future, it is hoped that Silog will be linked or integrated with Sidalih and Silon.

**KPU Member Information System and the Adhoc Agency (Siakba)**

Siakba is a digital application system used by the KPU to recruit KPU members and the KPU ad hoc body. KPU members include members of the KPU RI, Provincial KPU, and Regency / City KPU, while the KPU adhoc bodies include PPK and PPK secretariat, PPS and PPS secretariat, KPPS, Pantarlih, and TPS Order Officers, as well as overseas KPU ad hoc bodies. Siakba is a new application that has not been used in previous elections. At the time this report was written, the stages of organizing the 2024 election were the establishment of the KPU's ad hoc body, in particular the PPK. Thus, the recruitment of PPK for the 2024 Election is the first recruitment of ad hoc bodies using the Siakba digital application.

With the Siakba digital application, applicants for prospective ad hoc body members, in this case PPK, must have an account to be able to enter the Siakba application system. Then the applicants fill in the required identity and upload the required files. After the registration stage by uploading files, the next step is administrative verification of the requirements file. If the administrative files are incomplete or do not meet the requirements stipulated by the election law, then the applicant falls into the category of not passing the administrative selection so that he cannot proceed to the next stage of selection. On the other hand, if the prospective members of the KPU ad hoc body are declared to have passed the administrative selection, they will proceed to the next selection stage, namely the written test and interview. Those who pass all stages of the recruitment are determined as members of the KPU ad hoc body. A series of KPU ad-hoc agency recruitment processes were recorded in the Siakba digital application.

**Discussion**

Based on the research results above, the digital application systems used by KPU to support the success of the 2024 general election are extremely advantageous, although there are still some weaknesses. The research results have supported the previous researches and practical implementation of the stages in holding 2024 general election in Indonesia.

The first digital application system is Sipol. It is an application whose nature is only as a supporting work for political parties and general election administrators and not as a main element in determining political parties as election participants. Sipol is very helpful in providing convenience for political parties in managing management data, membership, and other secretarial data and can expedite the process of fulfilling the requirements for registration and verification of political parties. However, Sipol also has drawbacks because not all administrator human resources are ready with the Sipol application. There are discrepancies in the data that has been inputted, and there is no delegation from the central political party administrators to regional level administrators, so that these deficiencies hinder the smooth process of verifying political parties to become participants (Dimyati Huda et al., 2022).

The second digital application system is Sidalih. It plays a very important role in elections because it involves a person's right to vote and the right to elect candidates and pairs of candidates. The application of a voter data information system/Sidalih, when viewed from an efficiency standpoint, has several advantages, including: a) voter data recapitulation becomes faster and easier; b) search for voter data can be done more quickly; c) adding and deleting voter data can be done offline; d) correction of voter data, such as editing, synchronization, and analysis of duplicate data can be done easily; e) voter data becomes more up-to-date and accurate; f) voter data becomes more transparent and accessible to the general public; g) a centralized data system to make it more reliable; h) one application can be used by KPU throughout Indonesia; and i) Sidalih can be operated offline. They further said that the Sidalih application can work well to provide corrections and improvements to voter data so that it becomes accurate and up to date. Furthermore, based on research results it
showed that the quality of Sidalih was in the good category according to the wishes and needs of the user (Lestari et al., 2020). Meanwhile, even though Sidalih is a very useful tool in the process of updating voter data, it still requires a voter registration officer (Pantarlih) (Juned et al., 2021).

Pantarlih who are able to carry out their duties properly, verify voter data from door to door (door to door) will produce accurate data that can be accounted for. The results of field verification by Pantarlih were input to Sidalih so that Pantarlih made a major contribution to improving voter data. Even so, Sidalih Sidalalah has indeed proven to provide considerable benefits in helping improve voter data. The implementation of Sidalih makes it easy for election organizers, namely the KPU and its staff, to process voter data so that voter data becomes accurate (Sulastri & Natalia Zulita, 2015).

The third digital application system is Silon. Despite having many advantages in the nomination process, it is felt that Silon still has weaknesses. During the nomination process, there is the announcement of the provisional list of candidates (DCS) to get input from the public. This announcement of DCS is very important and must be conveyed as openly and as widely as possible in the hope that all prospective voters will be able to find out the list of names announced at DCS. If there is a candidate/pair of candidates who has certain records so that the person concerned becomes ineligible as a candidate, the community can immediately report it to the KPU as the election organizer or to the Bawaslu and all staff according to their level. KPU or Bawaslu will follow up on the truth of public reports. If it is proven true that the candidate or pair of candidates does not meet the requirements, the KPU may cancel the candidate or pair of candidates as referred to above. Indeed, not all reports from the public are true, because politically there is slander / false information by vilifying or slandering political opponents in order to gain public support which in the end wins. Apart from having to announce the DCS, the candidacy at the stage of determining the final candidate (DCT) is also announced to the public to get comments. Community responses will be actively and objectively followed up by the KPU according to their level. Sanctions will of course be given to candidates if the candidate is proven to have used fake documents for nomination requirements.

The fourth digital application system is Sidakam. It is an electronic information system owned by the KPU that is used as a means of reporting campaign funds by election participants, whether individuals, political parties or pairs of candidates. This system certainly greatly assists the KPU in obtaining campaign finance reports from election participants. This fund report is then submitted by the KPU according to the level to the public accountant for auditing. The audit results of the campaign finance reports are announced to the public so that the general public can get information about campaign funds, starting from the sources of income and spending or spending funds. Documentatively, Sidakam certainly provides positive benefits, besides helping the process of reporting campaign funds by election participants to run smoothly. It's just that there are some weaknesses of Sidakam. This system is still receiving reports from election participants. This system cannot detect the truth of the data reported or cannot detect whether the campaign finance reports submitted by election participants are actual data or not. If there are incoming funds whose amounts are outside the provisions, or from sources of funds prohibited by the election law, then the election participants do not report them, the KPU cannot detect it or the KPU does not know because it is passive in waiting for reports. Second, due to hunger for campaign funds 15 days after the voting, participants in the losing election became reluctant to report campaign funds. For example, candidates for DPD members. If he knows that he will be elected after the vote count, then he will be sure to submit a campaign finance report, because if he doesn't then he will be penalized for cancellation as the elected candidate. Conversely, if he knows that it is impossible to be elected from the results of the vote count, then he tends to be reluctant to report campaign funds, and he will not get any sanctions because it is clear that he has not been elected. This is one of Sidakam's weaknesses.

The fifth digital application system is Sirekap. It is an electronic application system used by the KPU to automatically record vote counting results at TPS using a data based plano and digital photo application provided by the Sirekap application. The Sirekap digital application system is truly extraordinary if at the stage of recapitulation of the 2024 General Election votes can be implemented properly. The Sirekap that will be implemented for the 2024 Election has actually not been properly
tested, whether it can be implemented properly or not. Sirekap has already been implemented in the 2020 regional elections. Logically, if it is implemented in the presidential and vice presidential elections, of course it can. This is because Pilkada is a miniature of the Presidential Election. The difference is the constituency. If the Pilkada electoral districts are provinces, districts / cities, while the presidential election electoral districts are the entire territory of the unitary state of the Republic of Indonesia (NKRI). Because the territory is the Unitary State of the Republic of Indonesia, the data on the results of the presidential election vote count for each TPS is uploaded via a digital photo in the Sirekap application. With the KPU server whose size has been calculated, it is certain that the Sirekap application can be implemented to recapitulate the presidential election vote count. Likewise, the recapitulation of vote counting for DPD members for each province can be easily done using the Sirekap application.

In contrast to the presidential election and DPD election, the election for members of the DPR, Provincial DPRD and Regency/City DPRD has a more complicated calculation mechanism and with a very large number of candidates for members of DPR, Provincial DPRD and Regency/ City DPRD. Sheets of plano are needed for vote counting. Manual vote counting is relatively not a problem because this has been done from election to election, but digital recapitulation has never been done at all in previous elections. by using the Sirekap application, the officers, using the Sirekap application, take multiple sheets of the flipchart, verify the correctness of the data in the photo with the original flipchart, and send photos that have been verified correctly. The problem is, the server is only centralized at the Indonesian KPU, while the data on the results of voting and vote counting at TPS are many times the number of polling stations throughout Indonesia, it is almost certain that problems will occur if they are not seriously anticipated. If the data sent loading does not arrive, it is almost certain that the situation will be noisy. There are political suspicions about the KPU, especially from political parties and losing candidates. From this it can be concluded that Sirekap is basically good and can help the process of holding the 2024 election, but it has the potential for big problems if it is not seriously anticipated and handled.

The sixth digital application system is Sidapil. It is a digital application used by the KPU to map electoral districts. The main basis for the preparation of constituencies is the population. Regency / city KPU uploads the total population of each sub-district into the Sidapil application. If there is a significant population increase or population explosion in an electoral area, it is possible to arrange a new electoral area. Likewise, if there is regional expansion, then of course, the arrangement of the main regional electoral districts and the regional electoral districts of the expansion area will be carried out. With the dynamic Sidapil application, it will make it easier for the KPU to map and make changes to the arrangement of electoral districts that are more in line with existing indicators. Furthermore, Sidapil is a digital system that is used to assist in compiling and managing the arrangement of electoral districts (Dapil) and the Allocation of Seats for Members of the DPR, Provincial DPRD, and Regency/City DPRD. The Electoral District (Dapil) and the Allocation of the Number of Seats for the DPR and the Provincial DPRD have been determined by the DPR RI and have been included in the Election Law. Basic data is needed to map the electoral districts and the allocation of the number of seats is the number of residents in each electoral district. Even though the Dapil and the allocation of the number of seats for members of the DPR and Provincial DPRD have been stipulated in the election law, changes to the electoral district and the number of seats for the DPR and Provincial DPRD are still possible depending on population developments.

The seventh digital application system is Silog. The basic data of logistic needed is mainly the number of voters per TPS. By inputting the number of voters per TPS, the number of ballot papers needed will be known automatically, the ballots plus their reserves. Silog will be more effective when the system is automatically connected to Silog, so that administrative staff does not need to input data on the number of voters but logistical needs have been calculated automatically in Silog. Because the system has not yet been connected to other digital systems, data input is still entered manually. This is the weak point of this system, although in general this system is very helpful for the KPU in recapitulating all logistical needs at each TPS. Because Silog’s function is to assist the KPU according to its level in mapping KPU’s logistics needs, especially at TPS, Silog does not deal directly
with the community or the community does not have a direct interest in the processes or products produced by Silog. Therefore, Silog almost never gets the attention of researchers for research. Previous research on Silog is hard to come by.

The last digital application system is Siakba. This system is the latest application system owned by the KPU, so this system has never been used as a tool to facilitate the recruitment of members of the KPU, Provincial KPU or RI KPU. KPU recruitment according to the level which was carried out previously did not use the Siakba application system tools. At the time this research report was written, Siakba was being implemented for the recruitment of the KPU ad hoc body, namely the District Election Committee (PPK). With this application, applicants to become PPK members no longer need to come to the Regency/City KPU office but instead upload all the required documents through the Siakba application. Furthermore, Siakba will be used to facilitate the recruitment of other ad hoc bodies, namely: PPK, PPS, KPPS, Pantarlih, TPS Order Officer, and PPK secretariat. Because the Siakba application system has just been implemented, there are no visible weaknesses or deficiencies. If the advantages are clear, Siakba at the district/city KPU level can help Regency/Municipal KPU expedite the recruitment process for the ad-hoc KPU body, that is, it can simplify, speed up, and Siakba can store election organizers' documents very well.

Conclusion

The results of this study show that the eight digital application systems used by KPU, namely: Sipol, Sidalih, Silon, Sidapil, Sidakam, Sirekap, Silog, and Siakba make a very large contribution to every stage of the 2024 General Election so that they become more effective, efficient, transparent, accurate, and up to date. Common weaknesses occur when data transmission is carried out simultaneously at one time, it has possibility problem for data traffic because the size of the server may not sufficient; second, the internet network is not evenly distributed throughout Indonesia; and third; not all of the human resources for general election organizers at the lower levels are capable of operating the digital system properly.

Suggestion

To improve the quality and to get the maximum results of election, general election organizers need to anticipate closing the gaps in digital application system deficiencies in holding the 2024 general election in Indonesia.

References


