

Electronic Democracy: Enhancing Participation and Transparency through E-Voting

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e-voting;
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Abstract: This study aims to examine the implementation of the e-voting system in Indonesia, focusing on its stages, challenges, and potential. The methods employed include document analysis and literature review related to e-voting, encompassing case studies of implementation in Belgium and the Netherlands. The study found that the implementation of e-voting in Indonesia is still in its initial stage and is limited by the uneven distribution of electronic identification (e-KTP). E-voting has the potential to simplify the election process in Indonesia, an archipelagic nation, thereby saving time and costs. However, challenges related to data security, process confidentiality, and election integrity must be addressed. Furthermore, the implementation of e-voting requires supportive infrastructure, adequate public education, and a robust legal framework. The findings of this study indicate that, although e-voting offers efficiency, the decision to adopt it should be made thoughtfully, weighing the pros and cons, as well as considering its impact on public participation.

Kata Kunci:

e-voting;
kendala e-voting;
potensi e-voting;
keamanan data.

Abstrak: Penelitian ini bertujuan untuk mengkaji implementasi sistem e-voting di Indonesia, dengan fokus pada tahapan, kendala, dan potensinya. Metode yang digunakan adalah analisis dokumen dan studi literatur terkait e-voting, termasuk kasus implementasi di Belgia dan Belanda. Penelitian ini menemukan bahwa implementasi e-voting di Indonesia masih dalam tahap awal dan terbatas oleh distribusi e-KTP yang belum merata. E-voting memiliki potensi untuk mempermudah proses pemilihan di Indonesia yang merupakan negara kepulauan, dengan menghemat waktu dan biaya. Namun, tantangan keamanan data, kerahasiaan proses, dan integritas pemilihan harus diperhatikan. Selain itu, implementasi e-voting memerlukan infrastruktur yang mendukung, edukasi publik yang memadai, dan kerangka hukum yang kokoh. Temuan dari penelitian ini memperlihatkan meski menawarkan efisiensi, keputusan adopsi e-voting harus melalui pertimbangan matang, mempertimbangkan pro dan kontra, serta dampaknya terhadap partisipasi masyarakat.

INTRODUCTION

Technological advancements significantly impact how we vote in elections (Cahyaningsih et al., 2019). Whereas we once relied on paper ballots and manual voting booths, many countries have transitioned to electronic methods, known as electronic voting or e-voting (Loeber, 2020; Santana et al., 2020). Some e-voting systems resemble ATMs (Habibi, 2018), facilitating faster and more efficient processes. However, transitioning to e-voting is not always smooth, encountering various challenges, including public skepticism and political elite resistance (Ülle & Martens, 2006). Concerns arise about the potential for manipulation and fraud and whether all societal layers have adequate access and technological expertise to use these new systems (Loeber, 2020; Maaten & Hall, 2008; Wilson-Daily & Kimmelmeier, 2021). Additionally, cases of technical failures and security issues in e-voting implementation have negatively impacted public trust in the election system (Cetinkaya & Cetinkaya, 2007).

Though e-voting offers many advantages, including potential for faster vote counting and increased efficiency, numerous challenges must be addressed (Moynihan, 2004). Any country

considering e-voting must carefully evaluate various factors, including technology infrastructure, accessibility, and, crucially, ensuring the security and integrity of the election process. The 2000 U.S. presidential election's failure in Florida marked a turning point in public perception regarding e-voting system reliability and effectiveness (Habibi, 2018). From malfunctioning equipment and confusing ballots to disorganized registration and millions of lost votes, these issues eroded public trust in democratic processes (Moynihan, 2004).

This skepticism has driven funding initiatives and legislative changes globally. Many governments decided to review and replace their election equipment, while others experiment with new voting methods. In the U.S., measures like the implementation of the Help America Vote Act (HAVA) of 2002 aimed to improve various election aspects, including voting equipment and procedures (Valdini & Lewis-Beck, 2018). Despite significant investments and focus on system improvement, e-voting remains a controversial topic. Security, accessibility, and transparency continue to be debated. Many argue that e-voting systems are susceptible to manipulation and cyber-attacks, while others emphasize the speed and efficiency offered by this technology (Alvarez et al., 2009).

In October 2002, the U.S. government allocated \$3.9 billion for election equipment modernization, hoping to improve election process integrity and efficiency (Cetinkaya & Cetinkaya, 2007). Meanwhile, in the European Union, various countries have proactively explored and implemented electronic voting technology. The Netherlands, which has used electronic voting machines since the 1970s, is an early example of this technology adoption. Belgium, Ireland, and France have also joined this trend by increasing their use of electronic voting machines in their elections (Habibi, 2018).

Countries like Germany and Norway are planning or conducting pilot projects involving this technology (Santana et al., 2020). Beyond electronic voting machines, many European countries are also exploring remote voting or e-voting concepts. The UK, the Netherlands, Switzerland, Italy, Spain, Germany, Finland, Greece, and Estonia are at various research and testing phases for remote electronic voting systems (Loeber, 2008, 2020; Ülle & Martens, 2006). In many cases, a primary objective of these innovations is to increase voter participation. The rationale is clear: by simplifying the voting process, more citizens are expected to engage in this democratic activity. However, while ease and efficiency are apparent advantages of using technology, issues like security, transparency, and election process integrity remain major concerns (Riera & Brown, 2003).

One of e-voting's main challenges is the issue of transparency, which can sometimes complicate the verification and audit of votes. This is one reason why this technology remains a controversial subject (Russell & Zamfir, 2018; Sandler et al., 2008). Nevertheless, it cannot be ignored that when appropriately implemented, e-voting has several advantages over conventional voting methods. These advantages include efficiency in the vote tabulation process—which is faster and more accurate—as well as increased convenience for voters, who can vote from the comfort of their homes or workplaces without having to queue at polling stations.

Indonesia faces significant challenges in implementing e-voting, referring to security, connectivity, and practical application at polling stations (TPS) (Ramadhan et al., 2018). Security challenges are crucial; there are real concerns about the vulnerability of e-voting systems to cyber-attacks and data manipulation (Saksono, 2020). Reliable and trusted cybersecurity solutions need to be implemented to protect voter data integrity and election results while building public trust in e-voting systems' reliability (Winarno et al., 2018; Zhu et al., 2021). Furthermore, Indonesia is an archipelagic country with extensive territories and uneven infrastructure, including internet access and telecommunication signals (Risnanto et al., 2019; Seftyanto et al., 2019). Many polling stations located in remote or inland areas with limited connectivity make e-voting implementation a logistical and technical challenge (Mustofa et al., 2021). The government needs to invest in developing information and communication technology infrastructure and prepare offline or hybrid solutions that can address connectivity issues without sacrificing election process integrity and security. The implementation of e-voting

in Indonesia must also be accompanied by a massive education program to increase public digital literacy so that all societal layers can participate easily and securely in election processes using this new technology. The primary objective of this study is to conduct a thorough examination of the adoption of electronic voting (e-voting) in Indonesia, specifically focusing on the accomplishments, limitations, and current preparations associated with its implementation. This study aims to conduct a comprehensive examination of the policies governing the development and adoption of e-voting systems in Indonesia, considering the influence of legislative, regulatory, and demand factors. Additionally, it seeks to assess the implications of e-voting on the democratisation process in the country. An additional aim of this study is to assess the progress made in the implementation of electronic voting systems, encompassing several dimensions such as technological.

RESEARCH METHODS

This research implements a qualitative descriptive design, focusing on the use of identity cards for e-voting, reviewing the regulation Law Number 19 of 2016 on Amendments to Law Number 11 of 2008 Regarding Electronic Information and Transactions, and assessing needs compared to readiness. This approach is based on the interactive analysis model of Miles et al. (2018), consisting of data collection, data reduction, data display, and verification/conclusion. First, data collection will be conducted through documentation study and media content analysis. The documentation study includes the review of official documents such as regulations, policies, and evaluation reports related to E-Voting. The data will be collected within the last 5 years. Media content analysis will evaluate the representation and public discourse of E-Voting in mass media and social media platforms.

Data reduction will identify and filter relevant data for further analysis. This technique involves coding, categorizing, and abstracting data in accordance with research themes. Once the data is processed, data display in the form of matrices, graphs, or narratives will assist researchers in understanding patterns, trends, and relationships in the data. This process will support decision-making and the formation of credible and valid interpretations. The final stage is verification and drawing conclusions, where findings and interpretations will be critiqued, tested, and confirmed to ensure their validity and reliability. The entire process will take place iteratively and flexibly, considering the principles of research ethics to ensure the integrity and sustainability of this study.

RESULTS AND DISCUSSION

The e-voting system in Indonesia is now in its nascent and restricted phase, as evidenced by its utilisation in select village head elections within the Jembrana District of Bali. One of the primary challenges is in the inadequate distribution of electronic identification cards (e-KTP), which serves as a prerequisite for facilitating the implementation of electronic voting in a wider range of regions. Globally, there is a growing trend towards the deployment of electronic voting systems, which encompasses a range of implementation types. Countries such as Belgium and the Netherlands have implemented the usage of smart cards and touchscreen PCs within their respective systems. In the context of Indonesia, an archipelagic country, e-voting has the potential to simplify the election process and save both time and costs—two crucial factors, as explained by Paatey & Ofori-Dwumfuo (2011).

However, any discussion regarding the implementation of e-voting must include considerations of security and confidentiality aspects, as emphasized by Zamora et al. Data security and the integrity of the election process are imperative to ensure the success and acceptance of e-voting by the public. Winarno et al. (2018) add that the benefits of e-voting are not limited to efficiency but also include various other positive aspects that need to be explored. Considering these potentials and challenges, the implementation of e-voting in Indonesia

requires a careful and structured approach, ranging from infrastructure improvement, public education, to supportive legal devices.

1. Cost: related to resource savings and more economical investments compared to the complicated, complex, and inefficient traditional systems.
2. Time: related to a faster election process and more accurate calculation of results compared to traditional systems.
3. Results: related to more precise and accurate calculation of results, and minimization of human error cases as long as the system is secured from various threats.
4. Transparency: related to the transparency of all processes as everything is conducted by an automated and real-time online system.

Security and confidentiality challenges are critical issues in the implementation of e-voting, but they are not the only factors to consider. One frequent question is whether e-voting can increase voter participation and reduce abstention rates. Research by Riera & Brown (2003) underscores the importance of understanding various aspects before adopting e-voting technology, as there are precedents showing that e-voting implementation does not necessarily significantly increase participation. Russell & Zamfir (2018) offer an analytical approach to comparing various election systems, from traditional to modern ones like e-voting and i-voting. The goal of such analysis is to minimize the risks associated with adopting new technology. In a democratic context, these risks not only involve election security and integrity but also their impact on public participation and human rights.

Therefore, while e-voting seems to offer several advantages—such as efficiency, speed, and potential cost savings—it is important to holistically consider its pros and cons. These include data security, potential for fraud or manipulation, and the impact on voter participation levels. In a democracy, the decision to switch to an e-voting system must be made with careful consideration and consultation with various stakeholders. Innovation in election systems will continue to evolve, but there must be a strong understanding that each system has its own strengths and weaknesses. In the long run, the goal is to create a fairer, more transparent, and inclusive election system, which will ultimately advance democracy and protect citizens' rights.

Electronic Identity Card Towards E-voting

In line with technological advancements and the modernization of population data, such as the implementation of the electronic Identity Card (e-KTP), there is also discourse to modernize the electoral system in Indonesia. This idea involves using touchscreen technology for legislative, presidential and vice-presidential elections, as well as local head elections, with the aim to make the election process more efficient, effective, and convenient for voters. As part of this effort, the Indonesian Government, through the Ministry of Home Affairs and the Directorate General of Population Administration (Dirjen Adminduk), has initiated the early stages of e-KTP implementation. This implementation is conducted on a limited scale in six regions: Jembrana District, Padang City, Cirebon City, Makassar City, Denpasar City, and Yogyakarta City, with pilot testing conducted in one sub-district in each region as an example.

This initiative signifies the desire to utilize technological advancements in modernizing various aspects of social life and governance, including the electoral system. With the Population Identification Number (NIK) integrated into the e-KTP, it is expected to be easier to verify voter identities, thereby enhancing electoral integrity. However, the application of this technology also raises questions about data security, accessibility, and cost efficiency that need to be addressed carefully. Although the implementation of e-KTP in some areas is still in the trial stage, this card is already recognized as an official identity based on Law Number 23 of 2006 concerning Population Administration and Law Number 11 of 2008 concerning Electronic Information and Transactions. This fact shows the government's seriousness in adopting technology to improve efficiency and accuracy in various aspects of public life, including the electoral process.

In the context of elections, the implementation of e-KTP and other technologies is expected to provide many advantages. The government continues to encourage the development and implementation of more accurate, efficient, publicly acceptable, cost-effective, accurate, and

accountable marking methods. Thus, the hope is to reduce potential fraud and inaccuracies in elections, ultimately minimizing the risk of electoral disputes. This strategy includes not only e-KTP technology but also various other innovations expected to minimize obstacles and increase transparency. The ultimate goal is to create a stronger, more reliable, and more democratic electoral system where every citizen feels confident that their vote is counted and treated fairly. There are various marking method options that can be used in conducting elections, and these options should be considered while taking into account the cultural diversity, social structure, and geographical conditions in Indonesia, a country that stretches from Sabang to Merauke. Therefore, it would be unwise to adopt a rigid and inflexible approach in choosing marking methods, especially considering the unique characteristics of each local government in Indonesia.

In this context, the government argues that the conduct of general elections, especially for local head and deputy head elections, should reflect the diversity and dynamics of the local community. This might mean utilizing various methods, such as punching or crossing, or even adopting other marking forms that suit local needs and conditions. Accommodating this diversity not only shows sensitivity to the needs and desires of the community but can also enhance participation and the legitimacy of the election itself. In other words, an inclusive and adaptive approach in choosing marking methods could be one of the keys to creating a more democratic and representative election.

In the context of e-voting implementation in Jembrana District, according to a witness from the petitioner's side, I Putu Agus Swastika, M.Kom, this system utilizes a unique identity in the form of KTP SIAK equipped with a chip. This chip contains a unique Population Identification Number (NIK) for each individual. Therefore, every voter wanting to participate in the election using the e-voting system is required to have this type of KTP. Initially, potential voter data is collected by the Population Agency and becomes the provisional voter list. After that, the election committee will verify this data to ensure its accuracy, before formalizing it into the Permanent Voter List (DPT). This DPT is then handed over to the IT Team, tasked with entering it into the e-voting system to ensure that only legitimately registered individuals can participate in the election.

This system combines chip technology in the KTP and the use of a verified database to create a more secure and accurate election process. Nonetheless, the success of this system also depends on the availability of KTP SIAK for all potential voters and the IT Team's ability to manage and secure the data. With this approach, the government aims to ensure the integrity of the election process while utilizing technological advancements for efficiency and accuracy. In the implementation of the e-voting system, there are several steps that voters must follow. First, voters must go to the verification terminal. There, the information stored in the KTP chip, including the Population Identification Number (NIK), name, and photo, will appear on the monitor screen. Although this information is automatically detected, the presence of witnesses from the candidates is still needed to verify the voter's identity. After successful verification, voters will then be directed to the prepared voting booth. Inside the voting booth, voters will see a monitor screen displaying photos and information of the available candidates. Voters can then touch the screen to select their chosen candidate. Once the vote is cast, the voting process is considered complete.

As a security and transparency measure, this e-voting system also provides a print-out feature for the final election results. This print-out will be stored and will only be opened if there is an election dispute in the future. In addition, the monitor screen at the polling center will also display the percentage of voters who have cast their votes and those who have not. This data will be continuously updated until the election time ends. After the election period is over, the committee will click the "result" button to display the final results, including which candidate won the most votes. This e-voting system is designed in such a way as to prevent someone from voting more than once. If there is an attempt to do this, the system will give a warning that the voter has already cast their vote. With various features and security measures, this e-voting system aims to ensure the integrity and efficiency of the election process, while mitigating potential fraud and disputes.

According to the Law on Information and Electronic Transactions

According to the "Law on Information and Electronic Transactions" (often abbreviated as UU ITE in Indonesia), as explained by DR. Edmon Makarim, S.Kom., S.H., LL.M., Article 5 clearly stipulates that electronic information is a legitimate means of legal evidence. Conversion from electronic form to physical form (hardcopy) is not necessary to validate the authenticity of such information. In other words, the information already has legal value in its original electronic form. This concept isn't new but has long been recognized and embedded in Indonesian legislation. For instance, the explanation of Article 33 of Government Regulation Number 88 of 1999 regarding Corporate Documents asserts that documents originally in electronic form don't need to be converted to physical form to be recognized as valid.

Likewise, with the evolution of laws in Indonesia, including the Archives Law, which is a development from the Law of 1971, it is acknowledged that archives aren't necessarily physical documents printed on paper. This indicates that the Indonesian legal system has adjusted to the advancements in information technology, including the acceptance and use of electronic information as legitimate evidence in legal processes. Indeed, in a legal context, electronic information can be considered a "written" document if it meets several criteria. First, the information must be "writable and retrievable" or "writable and accessible," meaning it should be stored in a medium that allows future access. Second, the information must be "original," ensuring its integrity. In other words, the information should be storable, retrievable, and displayable without undergoing any changes affecting its validity or accuracy. Third, the information must be "signed," indicating it originates from a credible and accountable source. The signature can be digital or another method ensuring the information comes from a competent and valid source.

If these three elements are met, the electronic information is deemed to have satisfied the "three written paradigms" in a legal context. This means the information can not only be used as valid evidence in court but also its authenticity, validity, and accuracy are guaranteed and accountable. This is crucial in many legal aspects, including but not limited to, legal contracts, financial transactions, and other legal procedures.

Referring to the principles of technology neutrality and prudence foundational to the Law on Information and Electronic Transactions (UU ITE), parties responsible for organizing electronic systems are obliged to implement them cautiously. Carelessness or negligence in running these systems can lead to losses for others, as regulated in Article 15 of UU ITE, explicitly stating that system organizers must be responsible for losses resulting from their negligence or imprudence. Furthermore, Article 4 of UU ITE elucidates that one purpose of this law is to provide as much technology access as possible to the entire community. This means the law aims to facilitate and ease the use of information technology across various societal layers, not limited to those already familiar with technology.

Regarding system reliability, the creators of UU ITE have strived to integrate technical and organizational aspects. In this context, an electronic system must not only be technically well-designed but also efficiently operated and managed by a competent organization. Planning becomes a critical element in developing information systems or computer systems, meaning the design and implementation must meet identified specific needs for the system to function optimally while minimizing potential risks or losses.

In the context of organization and management, the management information system is a crucial platform for providing services to legal entities or corporations. Before automation implementation, a series of business activities, referred to as "business processes," usually run smoothly. When these processes are then automated by so-called "electronic artisans"—engineers or technicians utilizing technology for automation—copyright issues can become significant. For example, if the automation or engineering automatic process is controlled or even acquired by another party, the copyright of the process might fall into the hands of non-original owners. This can result in the discontinuation of public services, regrettable, especially when discussing copyrights that ideally shouldn't be owned solely by private entities. In this case, the concept of copyright must be understood as an element emerging from the inception of an engineering process, not the other way around.

Regarding technical aspects, input, communication, and output are the basic components of every computer system. Embedded chips in systems, like chipped ID cards or smart cards, play a crucial role. These chips, equipped with their own operating system, are the first components accessed when a computer is turned on. They also are responsible for identifying and taking attendance on all hardware connected to the system, ensuring each system element operates as expected, adding a security and efficiency layer to the entire process.

Within the framework of the Law on Information and Electronic Transactions (ITE), electronic transactions apply not only in the private domain but also in the public domain. One application of electronic transactions in the public domain is the organization of e-voting or electronic elections. However, the practical implementation of e-voting can fall on various spectrums of evidence resilience and security. At the lower end of the spectrum, e-voting systems might be vulnerable to several issues, including uncertainty about who is responsible if problems arise, lack of vote confidentiality assurance, dubious data authenticity, and questionable information integrity. All these can be reasons for stakeholders to reject or question the validity of an election.

Conversely, at the higher end of the spectrum, an e-voting system can be designed in such a way that responsibilities are clear, vote confidentiality is assured, and data authenticity and integrity are well-verified. In such cases, election results are harder to contest and more easily accepted by all involved parties. The Law on Information and Electronic Transactions (UU ITE) has provided a legal framework facilitating the acceptance of electronic information as valid evidence in court. Additionally, this law offers guidelines to judges on how to evaluate the validity of electronic information in a legal context. This is vital in ensuring that electronic systems, including e-voting and other electronic transactions, are managed and operated at high standards.

Electronically organized systems that are carelessly managed or that don't consider security and reliability aspects can harm many parties, either the government or individuals. Therefore, UU ITE emphasizes the importance of good governance in organizing electronic systems. If a security system is acknowledged and validated by law, then legally, the data produced by that system is deemed valid and indisputable unless strong evidence proves otherwise. This is crucial in a legal context as it helps establish who is responsible for particular information or actions recorded by the system.

A system designed, implemented, operated, and maintained well from the beginning will have a high reliability level. If the system's security audit is conducted regularly and its findings are consistent over time, including during security incidents, then the data produced by that system is considered valid. Systems meeting these standards will allow effective tracking in the event of security incidents, helping to determine who is responsible and what errors occurred, thereby facilitating a faster and more efficient legal process.

"Need vs. Readiness"

The existence of a paradox between the necessity and preparedness for the integration of technological improvements, particularly the e-voting system, within the broader framework of the Indonesian general election system, can be attributed to distinct justifications that warrant prioritisation of one over the other. Further analysis is necessary to determine the appropriate prioritisation between the necessity and preparedness in addressing technological advancements within the general election system in Indonesia. The primary objective of this measure is to ensure that the adoption of the electronic voting system effectively promotes facilitation rather than generating more controversies.

From the need's perspective, it's undeniable that Indonesia urgently requires a more advanced system with various conveniences in conducting elections while upholding the principles of direct, general, free, confidential, honest, and fair (*luber and jujur*) as mandated in the 1945 Constitution. In other words, the application of the e-voting system benefits Indonesia's needs as a democratic country in conducting general elections. However, it's recognized that this system has various weaknesses in its implementation. Thus, even though Indonesia needs this system, other aspects still need attention.

From another perspective, the readiness to adopt the e-voting system in organizing general elections in Indonesia also needs special attention regarding the condition and situation of the future electorate and the country's ability to manage this e-voting technology. This includes preparation in terms of experts, supporting devices for the implementation of e-voting considering Indonesia's geographical condition, readiness of the electorate, preparedness to face various possibilities and risks if the system does not run as planned, and other preparations from both the community and government.

Considering the advantages and disadvantages of e-voting, it can be said to be feasible and possible to be implemented in Indonesia. However, many regions require special attention from the government regarding infrastructure to support this e-voting system, for instance, electricity, internet network, experts for the e-voting system, communities that are not yet computer literate, and so forth. Thus, there are two opposing things, namely the government's need for e-voting and the readiness of the community and the regions to support e-voting.

In the case review of Article 88 of Law Number 32 of 2004, which states that, "Voting for regional heads and deputy regional heads is done by punching one of the pairs of candidates on the ballot," the Petitioners in one of their petitions requested the Court to decide to annul Article 88. This is because the Petitioners wanted to implement e-voting in the regional head elections in Jembrana in 2010, but with the existence of the article, it was estimated to hinder the e-voting process because it was not specifically regulated and could potentially cancel the e-voting results considering Article 88 did not mention the e-voting system as one of the methods in conducting general elections.

In principle, in accordance with the mandate of Article 18 paragraph (4) of the 1945 Constitution that, "Governors, regents, and mayors, each as the head of the regional government of provinces, regencies, and cities are elected democratically." That the principle of regional head elections as regulated in Article 18 paragraph (4) of the 1945 Constitution is then regulated again in Article 56 paragraph (1) of Law Number 32 of 2004 that, "Regional heads and deputy regional heads are chosen in one pair of candidates implemented democratically based on the principles of direct, general, free, confidential, honest, and fair." Then the Petitioners submitted to legalize e-voting as a transformation of general elections from conventional general elections.

To provide justice to the Petitioners, the Court considered Article 28C paragraph (1) of the 1945 Constitution that, "Every person has the right to develop themselves through fulfilling their basic needs, has the right to education and to benefit from science and technology, arts and culture, to improve the quality of their lives and for the welfare of humanity," and Article 28C paragraph (2) of the 1945 Constitution that, "Everyone has the right to advance themselves in collectively fighting for their rights to build society, nation, and their country." Through these two articles, there is no barrier to the validity of e-voting as a transformation from general elections that can not only meet the principles of elections but also have other advantages as explained in the previous sub-chapters.

However, to nullify or declare Article 88 no longer has legal force would create a quite difficult legal situation, considering many regions in Indonesia that are not yet able to accommodate the e-voting system both in terms of communities that are not yet technologically literate and in terms of other facilities, for example, electricity, internet network, and others. Thus, the Constitutional Court decided not to declare the annulment of Article 88 considering many regions that are not yet able to accommodate the e-voting system, if annulled, there would be a legal vacuum. Because it was not annulled, regions that cannot conduct elections via e-voting can still use the conventional election system, namely by punching or ticking. Therefore, it can be said that the decision of the Court from the perspective of students is very fair, namely by allowing e-voting as a broader interpretation of Article 88 of Law Number 32 of 2004 and becoming a new form of transformation to advance the nation through technology. However, on the other hand, it still considers obstacles that hinder e-voting in regions that may not yet be able to hold e-voting by still conducting conventional general elections.

In the ruling, the Panel of Judges stated that Article 88 of Law Number 32 of 2004 concerning Regional Government (State Gazette of the Republic of Indonesia of 2004 Number 125,

Supplement to the State Gazette of the Republic of Indonesia Number 4437) 43 is conditionally constitutional to Article 28C paragraph (1) and paragraph (2) of the 1945 Constitution of the Republic of Indonesia so that the word, “punching” in Article 88 of Law Number 32 of 2004 concerning Regional Government is also interpreted as using the e-voting method with the following cumulative conditions:

1. Not violating the principles of direct, general, free, confidential, honest, and fair;
2. The region implementing the e-voting method is ready from the aspects of technology, financing, human resources, and software, the readiness of the community in the related region.

Regarding the principles of elections, as has been analyzed above, e-voting can accommodate these principles. However, if the election organizers are not careful and strict about supervision in using this system, it is possible that new frauds can emerge through this system. Because, after all, every system has its disadvantages and advantages, and the government must choose a system that is more appropriate to be applied in general elections in Indonesia so that any chosen system still accommodates the essentials of conducting general elections themselves. Although there are various advantages to implementing the e-voting system, the use of e-voting must be based on objective considerations, namely the readiness of the election organizers, namely the government, the community, funding sources, and technology, and other related parties that really must be prepared thoroughly. Thus, the choice to implement this technology truly becomes the right choice for the general election system in Indonesia.

The Constitutional Court in its ruling gave a broader interpretation of Article 88 of the Law in question so that its implementation does not conflict with the 1945 Constitution. So it can be ensured that with the addition of choices of ways or systems in conducting general elections can create a better election system in Indonesia, because each region in Indonesia can choose and implement a system that is considered better and more suitable for the region, whether with a conventional system or e-voting.

The decision from the Constitutional Court certainly opens up a new breakthrough for general elections in Indonesia towards more advancement like the countries of India, Brazil, America, and other countries that have implemented the e-voting system in their general elections. Through this decision, it gives Indonesia the opportunity to move towards further advancement, namely e-democracy. After the existence of e-government, then leading to e-ID and e-voting, Indonesia can step towards e-democracy so that the entire participation of the community to build this country can be through electronic media such as mobile phones, computers, televisions, and others. Thus, it can be ensured that the benefits of technological advancements in Indonesia are increasing because they have reached various joints of community life in carrying out their rights and obligations as citizens of a democratic country, Indonesia.

The response to the inquiry regarding the conflict between necessity and preparedness in implementing e-voting for general elections in Indonesia can be addressed through the preservation of Article 88 of Law Number 32 of 2004 concerning Regional Government. Additionally, a more comprehensive understanding of the aforementioned article, coupled with the adoption of the e-voting approach incorporating cumulative prerequisites, can be employed. According to the provisions outlined in Article 88 of Law Number 32 of 2004 about Regional Government, Indonesian areas that lack the necessary resources and equipment to implement the e-voting system are permitted to resort to conventional election methods, such as manual punching or ticking. However, in locations where e-voting has been successfully implemented, it can contribute to the progress of the nation. E-voting should be carried out under certain conditions, such as adhering to the principles of direct, general, free, confidential, honest, and fair elections, and meeting other essential requirements. Therefore, the implementation of e-voting does not result in a legal void for places that are not adequately prepared to adopt this technology. The Court's decision has introduced a significant development in the field of general elections, presenting novel election methods that are believed to address issues of efficiency and effectiveness in terms of cost, time, and energy, while still adhering to the principles of

transparency and fairness. Therefore, it is anticipated that the implementation of e-voting will propel Indonesia towards the realisation of e-democracy.

CONCLUSION

The implementation of the e-voting system in Indonesia is still in its initial and limited stages. The main constraint in Indonesia is the insufficient distribution of e-KTP, which is a crucial requirement for conducting e-voting. However, internationally, the application of e-voting is increasing with various implementation models, such as those used in Belgium and the Netherlands. In the context of Indonesia, an archipelagic nation, e-voting has the potential to simplify the election process and save both time and costs. Nevertheless, discussions about the application of e-voting must consider aspects of security and data confidentiality, as well as the integrity of the election process. Besides, the adoption of this technology needs to be approached cautiously, ranging from enhancing infrastructure and public education to supporting legal devices.

Aligned with technological advancements, initiatives are underway to modernize Indonesia's election system with technologies like e-KTP and touchscreen interfaces. These initiatives aim to make the election process more efficient and effective. The Indonesian government has initiated the early implementation of e-KTP in some regions as an effort towards modernization. However, challenges such as data security, accessibility, and cost efficiency need attention. Under Indonesian legal frameworks, electronic information is recognized as valid evidence, and its validity can be guaranteed if it meets specific criteria. The ITE Law emphasizes the importance of good governance in the administration of electronic systems and provides a legal framework to facilitate the acceptance of electronic information as valid evidence.

Overall, while e-voting offers advantages such as efficiency, speed, and cost savings, its implementation needs to be considered carefully, taking into account its strengths and weaknesses, including data security, fraud risks, and its impact on voter participation. The decision to switch to e-voting needs to be made with careful consideration and consultation with various stakeholders, considering the readiness and needs of both the community and the regions. This will help create a fairer, more transparent, inclusive election system that can protect the rights of citizens.

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