Regulatory frameworks for securing electoral processes in Ukraine: managing information security challenges

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Abstract The administrative and legal framework for managing the information security of electoral processes in Ukraine includes regulations, various measures and procedures that are primarily aimed at ensuring the reliability and security of the electoral process due to the negative impact of external information, manipulation and illegal interference. Cyberattacks, media manipulations, and imperfect legal frameworks in the electoral sphere can lead to the invalidation of election results and the loss of confidential information. The main purpose of the domestic legislation is to strengthen the relevant protection of information from cyber threats. The relevance of studying this issue is primarily related to the administrative and legal framework for managing the information security of electoral processes in the spectrum of modern technological capabilities and external influences connected with the digital sphere. The purpose of the academic paper is to determine the administrative and legal framework for managing the information security of electoral processes in Ukraine. The academic paper the problems caused by the violation of information security in the process of electoral activity have been revealed. The features of the administrative and legal framework for managing the information security of electoral processes have been established. The legal and regulatory framework for information security management during elections has been studied. The academic paper also emphasizes the inexpediency of holding elections during the period of martial law and identifies the causes and consequences.

Keywords: information security, national security, elections, cyberattacks, media environment, martial law

1. Introduction

The implementation of the electoral process in Ukraine involves the use of a number of different methods and means of legal regulation that reflect the legal status of the subjects of informatization, as well as administrative and legal activities carried out in this area. The administrative and legal framework of the electoral process in Ukraine covers administrative and legal support entities, administrative law provisions, legal organizational forms and methods of their activities, as well as administrative procedures.

The global trend of digitalization of social processes causes the transformation of the administrative and legal prerequisites for managing the information security of electoral processes in Ukraine, expanding the range of their electronic resource support and scaling the amount of information used. In the light of the outlined concept, innovative methods of communication interaction are being introduced, and the dynamics of information provision is changing. Today, the increased requirements for transparency of the electoral process are relevant, which requires an innovative approach to the formation of the information support mechanism and security aspects.

In modern scientific circles, the theoretical generalization of the essence, mechanism and tools for managing the information security of electoral processes has been updated (Panchenko O. A., 2019; Ostapenko O., Baik O., 2021), the main problems of this institution within the framework of the current election legislation have been identified (Chudyk N. O., 2021), and optimization measures in the field have been proposed (Pashkovskyi V. F., 2021; Antonova L. V., 2020). Researchers have substantiated a number of conceptual concepts and recommendations based on practical European experience, focusing on the administrative and legal prerequisites for managing the information security of electoral processes (Frenchman-Jakovets T. A., 2022). Some scholars identify electoral information security as a phenomenon of the electoral law institute, the norms...
of which are intended to regulate the mechanism for implementing electoral information (Bondarenko, S., Bratko, A., Antonov, V., Kolisnichenko, R., Hubanov, O., & Mysyk, A., 2022). At the same time, a number of researchers offer their own vision of the principles of optimizing the area under study in terms of convergence of the institution of electoral law and information activities, as well as guarantees of citizens’ electoral rights.

It is obvious that, by its very nature, the administrative and legal framework for managing the information security of electoral processes is positioned as a multi-aspect subject of research. Despite the significant contribution of modern scholars to the field of research, the concept of considering information support for elections as a complex political and legal phenomenon that requires a specific approach to security processes has not been sufficiently studied. Identification of opportunities and determination of the vector of implementation of international election standards as a benchmark for the implementation of administrative and legal prerequisites for managing information security of electoral processes remain poorly researched.

The purpose of the article is to analyze the essence of the administrative and legal prerequisites for ensuring information security of electoral processes in Ukraine, taking into account the specifics of socio-political and procedural concepts.

2. Literature Review

The issue of studying the administrative and legal framework for managing information security of electoral processes in Ukraine is covered by very few works in the national scientific literature. Consequently, the existing studies do not fully reflect the problems of the administrative and legal framework for managing information security of electoral processes, the features of election security in Ukraine, etc. Currently, it is important to explore this issue comprehensively, relying on the scientific sources of authors who have covered this topic. For instance, the scientific work of Chudyk N.O. (2021) reveals the peculiarities of administrative and legal support of the electoral process in Ukraine, its role and its place in the legal system of the state. In her study, Yarmolenko O. V. (2019) emphasizes the expediency of disclosing the ways and methods of legal regulation of information support for elections. The issues of legal support of state information security management are fully and comprehensively covered in the scientific article of O. Panchenko (2019). The author revealed the content of the concept of information security and its role in the legal system of Ukraine, explored the features of cyber security and the mechanism for its improvement.

The Ukrainian researcher L. Antonova reveals the peculiarities of improving the electoral process in Ukraine from the perspective of the organizational and legal aspects. Considering the scientific studies, the issue of the administrative and legal framework for managing information security of electoral processes in Ukraine remains unresolved.

The purpose of the research is to characterize the administrative and legal framework for managing the information security of electoral processes in Ukraine.

3. Methods

General and special methods of scientific cognition are used in the research, which made it possible to determine the content of administrative and legal principles of management, to reveal the concept and content of the electoral process, and information security. The formal and legal method provided an opportunity to study the regulatory framework that defines the principles of administrative and legal management of information security during elections. The application of the method of analysis and synthesis made it possible to study the main aspects related to the protection of information security in the field of electoral law. At the same time, the method of synthesis helped identify the major problems with the exercising of the right to vote during the period of martial law in Ukraine.

4. Results

The electoral process in Ukraine has been characterized by a special nature and content since its independence. Holding elections in Ukraine is always a painstaking and time-consuming process that requires effort, energy and considerable resources to yield results. An imperfect legislative framework, voters’ low confidence in the prospects for change, and corruption affected both the election process and Ukraine’s image on the world stage to a certain extent. According to L. Antonova, elections in Ukraine are an indicator of the level of a democratic state governed by the rule of law. This is one of the legal ways and an effective opportunity to influence real social issues. It is worth noting that the electoral process is an effective legal mechanism that influences the formation of a new center of power in the state and determines the country’s future political course.

According to Article 34 of the Constitution of Ukraine (Constitution, 1996), the state guarantees its citizens the right to freedom of thought and speech, prohibits censorship and guarantees everyone’s right to information. The constitutional principles of equality of all citizens before the law define their fundamental rights, including the right to participate in elections (Antonova, 2020).

Every state aspires to hold elections that are transparent and fair. The electoral system in Ukraine was weak. L. Kostetska considers that a number of factors that cause problems in the electoral process in the country include as follows:
– inconsistency of relations between different branches of power in the state;
– establishment of parties not based on ideology;
– use of “artificial” candidates to “disperse” votes;
– illegal interference in the electoral process;
– manipulation of voters’ electoral trust;
– the use of prohibited technologies by elected officials to vote fraud (Kostetska, 2017: 70).

Interference in the election process has a negative impact on society as a whole in addition to undermining the state’s authority and reputation, which have been built over many years of hard effort. That is precisely why it is important to make efforts to strengthen national stability and security both during the elections and in the process of resolving other electoral issues (Akimov et al., 2020). In his research, O. Panchenko emphasizes that information security in Ukraine is a complex of political, state, public interests, human and national values defined by the Constitution of Ukraine. It is important to note that ensuring information security is a priority task of state bodies along with ensuring the protection of the sovereignty, territorial integrity of the state and economic security (Panchenko, 2019; Bondarenko et al., 2022).

O. Ostapenko and O. Baik emphasize that Ukraine has significant prerequisites for the development of the information society. The mentioned information domain requires perfect protection since it contains confidential information, the disclosure of which will affect not only the security of citizens but also the state as a whole. Administrative mechanisms for protecting information include regulations that help protect such information from undesirable influences (Ostapenko, Baik, 2021: 168).

It is worth noting that the information security of the state is an integral part of every sphere of national security. Information security is an independent sphere of national security, characterized by the state of protection of national interests in the information field from internal and external threats (Doctrine, 2017; Bondarenko et al., 2022).

Studying the issue of information security of the electoral process should begin with the very concept of “information”. According to B. Stankevych, modern media have formed the basis for fundamentally new opportunities for the effective use of information in various spheres of society. The electoral sphere is no exception. Elections are one of the most important stages in the formation of a democratic state governed by the rule of law. Information support in the course of electoral activities is aimed at informing the potential voter all available information about the candidate and other organizational issues. Each type of information resource, when used for political purposes, has both advantages and disadvantages (Stankevych, 2010).

It is crucial to emphasize that while information is being preserved in the run-up to and during the elections, efforts should be made to keep it from being obtained by other parties. Administrative and legal aspects of information security in Ukraine are defined by the Code of Administrative Offenses, Ukrainian legislation, resolutions and orders, and other regulatory acts that regulate certain stages and procedures of the electoral process, and help ensure protection against unlawful interference with both the electoral process and access to information constituting a state secret (Oliynyk, 2017).

According to O. Yarmolenko, the implementation of information support for the electoral process and its protection is determined by Chapter 15-A of the Code of Administrative Offenses (Code of Administrative Offenses, 2024). Along with this, the implementation of information support measures involves the regulation of a certain category of social relations arising in the process of preparation or during the election period. Providing voters with the relevant information is an important mechanism for protecting the electoral rights of citizens. In this case, the vectors of information and electoral rights function in parallel (Yarmolenko, 2019: 36).

The domestic scholar N. Chudyk, revealing the content of the concept of “administrative and legal support of the electoral process in Ukraine”, defines it as the activity of persons regulated by administrative and legal norms who, in accordance with administrative law, may influence the participants in the electoral process, in order to ensure law and order and stability of the electoral process, the implementation of electoral rights, freedoms and legitimate interests of citizens (Chudyk, 2021).

It’s no secret that the elections in Ukraine are an important target of cyber warfare. Maintaining a high degree of information security is still a pressing concern during every election campaign. O. Panchenko has rightly noted that cyber security is now the most significant element of information security. The necessity of thorough and efficient national information space protection has grown dramatically in recent years. A number of adopted legal acts have already yielded noticeable results but the issue still needs to be finalized (Panchenko, 2019).

The administrative and legal framework for managing the information security of electoral processes is determined by various factors, which include the following legal acts providing the basis for regulating information during electoral events in Ukraine (Akimov et al., 2020). The domestic legal framework defines the legal status of the electoral process and establishes the procedure for its holding. The major function of the legislation in this regard is to protect information from cyber threats, control media platforms in terms of expressing particular information, and provide effective judicial protection in case of information security breaches. At the same time, the administrative and legal framework for information storage contains innovative developments that contribute to cyber security during elections. This should include databases, electronic electoral
systems, and restrictions on misleading information available on the Internet. There are situations where journalists and media organizations are unable to establish clear standards for what kind of material they should report, where they should report it, and how they should do it. Therefore, they often resort to self-censorship. In this case, the balance between campaigning and informing is lost.

Figure 1 Administrative and legal principles of information security management in Ukraine.

In order to ensure information security, the Verkhovna Rada adopted a decision "On Information Security Strategy" dated October 15, 2021. This regulatory and legal document defines the current threats and challenges to the national security of Ukraine in the information sphere, strategic goals and tasks aimed at protecting personal data and protecting the rights of individuals to information. At the same time, the legal basis of the Strategy, in addition to the Constitution of Ukraine and laws, is the National Security Strategy of Ukraine dated September 14, 2020 under No. 392. Issues related to cyber security are determined by the Cyber Security Strategy of Ukraine, approved by the Decree of the President of Ukraine dated August 26, 2021 No. 447.

It should be emphasized that monitoring and analysis of information flows are aimed not only at filtering out all misinformation that appears during elections but also at warning society about events related to false information that may harm both citizens and negatively affect the entire electoral process. The special monitoring commissions are intended to monitor the information that influences the preparation and conduct of the electoral processes in Ukraine, as well as to cooperate with law enforcement agencies to timely report such violations. International cooperation in this direction is quite important. International election observers involved in the domestic electoral process are another source that provides a legal basis for holding elections in Ukraine.

On December 14, 2017, the Head of the Verkhovna Rada on Information and Communication O. Danchenko stressed at the Committee Hearings “Principles of e-Governance in the Electoral Process” that the state is on the path of democratization, and, therefore, the society and each of its institutions need significant changes. Such institutions include the electoral process, which must be equipped with modern information technologies and standardized mechanisms for its full functioning in order to ensure that elections are held accurately and in accordance with the requirements of the current legislation. In addition, O. Danchenko emphasized that without the development of e-democracy and electronic expression of will, Ukraine has no future, no matter what reforms it implements. The introduction of information technologies in the domestic electoral process is aimed not only at improving the existing electoral mechanisms but also at attracting foreign experience of leading countries in order to progressively express the will and protect the results of the will in the process of electronic voting (Danchenko, 2017; Akimov et al., 2020).

As D. Smotrych rightly notes, in today's world, informational threats cross national borders and can have global consequences. This fact consists not only in the creation of legal mechanisms, but also in the development of the institutional mechanism for ensuring information security, including the educational component, as well as the systemic activity of state institutions that effectively protect national interests in the information sphere, respond to the spread of misinformation, and shape the information culture of society. To combat global threats, it is important to cooperate with international organizations and communities, because warfare in the information space knows no borders (Smotrych, 2023).
5. Discussion

The introduction of electronic voting will primarily help stimulate the involvement of young people in electoral processes. It is feasible to create a fully conscious nation that upholds its values and strives to advance without corruption by involving young people in elections. Trust in elections has recently declined significantly. This was mainly influenced not only by external reasons but also by internal factors. Society has lost faith that elections can achieve or change anything.

The introduction of the latest information technologies should increase the level of public confidence in the election results. The introduction of electronic voting is currently a common practice in many countries around the world. States that have already tested this system have no plans to return to the traditional voting model. In general, computer technologies are used in the electoral process to compile the voters’ lists, count votes, and determine election results. This is a common practice in Ukraine. However, the state has not progressed beyond systematization and calculations yet.

In many countries around the world, computer technologies are actively used not only as a way to systematize the information about voters or as a system that counts votes. Electronic voting is a much broader and more convenient aspect. Something similar is already being developed in Ukraine. For instance, the Unified Information and Analytical System “Elections” contains the fundamentals for informatization of electoral processes and a number of additional, digitized functions (CEC Bulletin, 2017: 21).

The digitalization of the electoral system is one of the directions of modernizing the electoral process in Ukraine. Particular attention should be paid to the application of innovative technologies, the possibilities of their implementation, the directions of modernization and increasing public confidence in the electoral process. One of the options for modernization is administering the results of the votes counted by the CEC. Currently, the CEC was one of the first in Ukraine that managed to establish the most complete and efficient information system – the election system and the system of state registers of voters. These systems have been repeatedly attacked by hacker groups. It is impossible to determine exactly what the purpose of this was, but according to the SBU, it was based on two goals:

- threatening the information field by creating an unfavorable image of the state. The intention is to undermine Ukraine’s security and portray the country as feeble in the eyes of the world community;
- direct interference with the work of these systems to block the provision of information or distort it. Such interference was sometimes deliberate with the aim of artificially falsifying votes and leveling the results of the elections.

Nevertheless, the SBU’s successful efforts are yielding noticeable results in this area. The Law №2155-VIII, adopted on October 5, 2017, facilitated the introduction of new production technologies and electronic services for the convenience of citizens, which would effectively and safely simplify the exchange of electronic documents between citizens (The Law №2155-VIII, 2017). Along with this, the mentioned legal act defined the legal framework and organizational basis for electronic identification and provision of electronic trust services, rights and obligations of public authorities and citizens in the field of electronic identification and electronic trust services, as well as features of monitoring compliance with the requirements established by this legal act. It is worth noting that this powerful legal act defines the peculiarities of providing electronic services in order to simplify the electronic identification of citizens and ensure access to information.

In his own research, Pavziuk A. A. proves the effectiveness and expediency of using E-technologies in the implementation of the people’s will. In the framework of the constitutional and legal study, the author reveals the peculiarities of electronic expression of will in the context of the changes currently taking place in society. Therefore, the use of e-technologies in the process of expressing one’s will is aimed at strengthening the development of democracy and ensuring the rights and freedoms of citizens (Pavziuk, 2023: 5).

E-democracy is the concept of implementing ICTs to strengthen democracy, ensure accessibility, transparency and efficiency of public administration. In this context, it is becoming more and more crucial to consider how to help Ukraine adopt the characteristics of direct democracy (Pavziuk, 2021).

It should be emphasized that in recent years, Ukraine has been focusing its efforts on regulating the field of digital technologies and the problems arising from their arbitrary use. Foreign legislation in the field of political advertising and campaigning is outdated and does not take into account the role of online tools, and its renewal is delayed due to political reasons and the need for general improvement of the Electoral Code. Today, Ukrainian legislation contains only separate norms concerning the use of certain illegal practices. The Electoral Code regulates general issues related to the posting of political advertisements.

Thus, political advertising must be separated from other materials and marked, and public opinion surveys, the results of which are distributed on the Internet, must be published with an indication of the time of conducting, the territory covered by the survey, the size and method of forming a sociological sample of respondents, and the survey method, the exact wording of the questions, possible statistical error, the customers of the survey (Digital technologies, 2022).

The domestic scholar Y. Ishchenko emphasizes that the provisions of Chapter 15-A of the Code of Administrative Offenses do not fully reflect the realities of today in terms of information protection during elections. The mentioned norms of the codified legal act are not able to protect the results of the expression of will in case of illegal actions on the Internet.

https://www.malque.pub/ojs/index.php/msj
This concerns mostly the violation of fake information that appears from time to time in the electronic information field and undermines or causes significant inconvenience to candidates for elective positions. It is worth emphasizing that the development of ICTs will sooner or later lead to the struggle for voters, including by illegal means.

It should be emphasized that the professional training of persons who are obliged to conduct administrative investigations and draw up administrative protocols in accordance with the legislation does not fully meet the requirements of the present time and differs significantly from the information contained in the Code of Administrative Offenses. The application of administrative and tort legislation in the field of protection of citizens’ rights to free expression of will is not effective (Ishchenko, 2019: 38).

A full-scale war provoked by Russian aggression is currently ongoing in Ukraine. On February 24, 2022, the President of Ukraine issued the Decree № 64/2022 introducing the legal regime of martial law (Decree of the President № 64/2022, 2024), approved by the Law of Ukraine № 2102-IX of February 24, 2022 (Law № 2102-IX, 2024). All elections had to be postponed for an indefinite period due to the war and martial law.

The automated information and communication system of the State Register of Voters has been suspended for more than two years after the full-scale invasion and the imposition of martial law in Ukraine. This system was disabled in order to preserve and not disclose information about every citizen who has reached the age of eighteen. The suspension of the State Register of Voters in order to preserve valuable information has posed new challenges for the state bodies responsible for preparing and holding elections (Information from the State Register of Voters, 2023). Although elections are not currently on the agenda, the suspension of this system has forced the government and elected bodies to look for alternative ways to ensure the rights of citizens to participate in future elections. Therefore, the CEC, as the administrator of the State Register of Voters, should respond to the problems that have arisen after the full-scale invasion.

The issue of postponing the elections is being actively discussed both in Ukraine and in the international political arena. The opinions of those who are “for” are divided with those who are “against”. A strong argument against holding elections during a conflict is the actual danger to voters’ lives and health posed by frequent airstrikes, in addition to the absence of a proper system to conduct electronic voting.

According to a survey conducted by the Razumkov Center on September 21-27, 2023, those who are “against” the war mentioned the following reasons why elections should not be held during the war:
- lack of funds for the preparation and holding of elections — 36% of respondents;
- a ban on holding elections during the period of martial law — 32%;
- security issues — 31%;
- the impossibility of free expression of will, which is possible in democratic countries — 29%;
- impossibility of organizing the electoral process in certain territories of the country — 26%;
- complicated voting for refugees and internally displaced persons — 24%;
- difficulty or impossibility of voting for the military who are directly involved in the liquidation of the enemy — 22.5%.

It’s interesting to note that 14% of respondents believe internet voting is ineffective in resolving the issue of election legitimacy. We are talking about the threat of information that is necessary for the elections. 13% of the surveyed respondents believe that there is a danger of intensification of internal political conflicts and adoption of unlawful decisions in the conditions of war. 11% of respondents note that the temporary lifting of martial law for the period of elections will not only fail to resolve the issue of elections but will also negatively affect the national security and defense capabilities of the country. Another 9% of respondents point to the lack of personnel involved in the electoral process in Ukraine since most of them is either abroad or at the war front (Elections during the war, 2023).

At the moment, Ukraine is unable to guarantee its inhabitants complete safety in both the physical and digital spheres. Hackers regularly attack big servers holding a substantial amount of data. V. Pashkovskyi rightly noted that a number of urgent steps were taken in the institutional mechanism of information security before the full-scale invasion to enhance life and fortify Ukraine’s defense against hostile information influences. However, the ways of reorganization did not achieve their goal. This was hindered by the war. Endless debates in this area did not achieve the desired result. The information front was subjected to new attacks time after time (Pashkovskyi, 2021).

The Doctrine of Information Security of Ukraine was approved in February 2017 in order to ensure information security. Currently, when a full-scale war is ongoing in Ukraine, on March 18, 2022, the NSDC adopted the resolution “On the Implementation of a Unified Information Policy under Martial Law”, the main priority of which was to ensure a unified information policy in Ukraine. In this regard, information security aims to ensure not only the regulatory and political component but also the institutional sphere, the activities of the bodies that provide it, and the use of software and hardware. The issue of ensuring information security in times of war has become a vital necessity for both society and the state as a whole. This urgent issue is determined by national interests as well as human rights and freedoms. The basis of modern information security is the preservation of data integrity, information availability, confidentiality and reliability. Information
security, among other things, includes not only regulatory and political security but also the activities of specialized bodies and the use of software and hardware (Frenchman-Yakovets, 2023).

6. Conclusion

Thus, the administrative and legal framework for information security management is the basis for ensuring the integrity, transparency, and legitimacy of electoral processes. These principles include the legislative framework, protection against cyber threats, and media control in ensuring information flows related to the electoral process, effective judicial protection and international cooperation. The implementation of these elements can help increase the legitimacy of election results and public confidence in the electoral process.

Currently, it is important to keep in mind that elections during wartime may pose a threat to information security overall. Military actions and escalation of the conflict may contribute to the spread of disinformation, manipulation and cyberattacks on the electoral system. At the same time, military operations may limit access to information for certain groups of the population, which in turn violates the principle of a democratic electoral process providing equal and free access to information for all citizens.

Therefore, in order to prevent potential threats and maintain the democratic nature of the electoral process during the martial law period, it is crucial to consider both the technical aspects of ensuring information security in elections as well as the overall state of the country as a whole.

Ethical considerations

Not applicable.

Conflict of Interest

The authors declare no conflicts of interest.

Funding

This research did not receive any financial support.

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