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IMPROVING THE LEGISLATIVE PROVISIONS OF DIGITALIZATION FOR THE RECOVERY OF THE ECONOMY OF UKRAINE

Abstract. *The article is devoted to an important aspect of economic growth and post-war recovery – digitalization of economic activity and all spheres of social life in Ukraine. The key existing problems and challenges of the process of strategizing the digital development of Ukraine are identified (inconsistency of strategic documents, lack of proper legal institutions and procedures for regulating relations and protecting rights, etc.). Proposals for improving the complex of regulatory and organizational support for the digitization process have been developed, which relate to the unification, systematization and harmonization of legislation.*

Keywords: *digitalization, legislation, national economy, strategy, cyber security*

Introduction. The economic environment of Ukraine during the Covid-19 pandemic was significantly transformed, in particular under the influence of accelerated digitization of administrative and financial services, servicing and outsourcing, digitization of the industrial, agricultural and transport sectors. In the conditions of martial law, this experience was even more actualized, allowing to maintain viability and economic stability, to quickly and flexibly respond to economic entities to numerous challenges, to mobilize internal reserves, and to coordinate efforts. That is why it is worth turning to overcoming fragmentation and striving to ensure the coordination of digitalization processes of all sectors of society. Appropriate legislative and regulatory support serves as the foundation for creating comfortable conditions for doing business in Ukraine and providing enterprises with the opportunity to use the benefits of digitalization.

Ukraine's digital development is largely hampered by the unfavorable institutional environment in which its economy currently finds itself, in particular, due to: the imperfect organization of the management of the national economy, the inconsistency of the current legislative framework with the requirements of digital transformations, the lack of proper legal institutions and procedures for regulating relations and protecting rights in conditions of

rapid socio-economic changes. This state of affairs is confirmed by the results of the analysis of Ukraine's path to building a developed information society [16].

The recently established National Council for the Recovery of Ukraine from the Consequences of the War, with the participation of involved experts, developed the Draft Plan for the Recovery of Ukraine, a section of which is devoted to the end-to-end processes of accelerating the digitalization of the national economy and society.

A detailed analysis of the list of current strategies, concepts, and programs given in the Materials of the Working Group "Digitalization" (July 2022) [13] to the Recovery Plan of Ukraine shows the insufficiency and inconsistency of the current regulatory and legal documents to approach the declared vision "Ukraine is a state with the most convenient public services for citizens and businesses, high penetration of high-speed Internet and a developed digital economy. The cyber security system in the state is the most modern in the world."

Analysis of the recent research. Recently, the impact of digitization on the economy and society was discussed at the Global Summit on Manufacturing and Industrialization (in the UAE) as one of the best ways to prepare for post-Covid-19 recovery. The same considerations are applicable in the conditions of martial law. A positive trend towards reducing the digital divide in Ukraine has been noted [3], which nevertheless requires active development of the ICT sector and neutralization of social and technological challenges for providing sustainable development. In addition, paper [6] declares the need to build a hierarchy of legal acts regulating the development of the information society, digitization of government bodies, and the introduction of electronic governance at the national level. Scientists Chorna N.P.[2], Dmytriev, I., Dmytrieva, O.[5] point out the need to speed up legal regulation and unify the terms in existing legal acts regulating the development of the digital economy of Ukraine and see the process of their unification and consolidation through the adoption of the Strategy for the Development of the Digital Economy of Ukraine as a sustainable legislative basis for ensuring the strategic development of the state's digital economy. At the same time, Omelchenko A. [14] emphasizes the improvement of Ukrainian legislation by involving and adapting modern foreign experience in the codification of legislation in the field of digital transformation, the creation of a digital economy and a digital society.

The aim of the article. The purpose of the article is to identify the main challenges in the field of legislative and regulatory support for digitalization and to develop proposals for providing an adequate response to them.

Methodology. The research methods that were used in the article are comparison, methods of abstraction, induction and deduction, analysis and generalization.

Results of the research. The realities of the last decade have shown that documents of a planning and management nature that are not regulated by legislation are often developed with rating, instead of economic, indicative indicators, weak justification of the necessary resources (in particular, financial) and a very formal mechanism of coordination and control. Concepts are developed as independent documents that outline only ideas and directions for solving important problems in the economy and do not provide for a mandatory further transition to the stage of developing relevant programs and do not contain any justifications and planned indicators, identified executors and coordinators. Instead of the difficult and responsible development of complex state target programs (STP) of an interdisciplinary nature, more generalized and less burdensome strategies are being developed, which have no legislative basis in terms of content, development procedures, and the method of approval and implementation. As a result (mostly of improper development), most of these strategies and concepts are never implemented and are not even brought to the consideration of the Verkhovna Rada of Ukraine.

In addition to documents of a strategic nature, attention should be paid to existing gaps in the creation of a legal field for the application of artificial intelligence technologies, machine learning, Big Data and the development of the virtual asset market, which set global trends in digital development and provide competitive advantages to those who will use them earlier than others .

Thus, on January 17, 2022, the Law of Ukraine "On Virtual Assets" (2074-IX) was adopted. A review of the provisions of the Law allows us to state that the document is a framework, that is, one that establishes the "rules of the game and behavior" for the main participants of the virtual assets market – the state in the form of relevant bodies, service providers and other participants. The specified Law must be harmonized with the relevant changes to the Tax Code of Ukraine, the Criminal Code, and some of its norms need to be adjusted and changed. In particular, providing a clear definition of the concept of cryptocurrency; how the virtual asset and the virtual asset key are related; specifying the

definition of an impeccable business reputation for entities providing services for the turnover of virtual assets or simplifying the requirements for the registration of these entities.

In the field of application of artificial intelligence technologies, the "Artificial Intelligence Development Concept" was approved in 2020, but the project "National Strategy for the Development of Artificial Intelligence in Ukraine 2021-2030" [15], developed on its basis, remained outside the attention of the government.

The rapid spread of "machine learning" and "big data" technologies, the ambiguous results of the use of these technologies require an adequate response from the state to regulate the use of data and their protection. So, for this purpose, a new law was introduced in the EU called General Data Protection Regulation (GDPR). GDPR regulates the collection, unification and use of personal data in EU countries since May 25, 2018. The GDPR applies to companies outside the EU, so companies operating in the European Union or collecting data from EU citizens in the course of their activities must comply with GDPR requirements. As for the issue of personal data protection in other countries, traditionally, the USA is considered the most developed jurisdiction. One of the reasons for the need to develop such legislation is the significant number of violations in the field of personal data. In this regard, a new law on the protection of personal data was adopted in the state of California in 2020 («California Consumer Privacy Act (CCPA)»). First of all, its importance lies in the fact that in California there are such companies as Facebook, Google, Apple, which work with personal data of users all over the world. The purpose of this law is to protect personal data processed by private law legal entities that are the managers of such information. That is why this law gives users the right to learn about how the company disposes of their data, as well as the opportunity to request the deletion of information about themselves and the stopping of its distribution.

In the matter of personal data protection, Ukraine relies on international experience and strives to ensure compliance of national legislation with EU legislation. For this purpose, a draft law has been developed since 2018, based on the European GDPR model of personal data protection. Currently in force are the Law of Ukraine "On Protection of Personal Data" dated 01.06.2010 No. 2297-VI (Revision as of 19.07.2022) [11], the Law of Ukraine "On Information" (2657-XII, current version – dated 15.06.2022) [9], the Law of Ukraine "On the Protection of Information in Information and Communication Systems" (80/94-BP, current edition – dated 01.07.2022) [10], which are aimed at the unification of national and European legislation in the context of the development of new types of legal relations, which are not regulated by national legislation.

Ukrainian legislation does not have a clear classification of personal data, and the main problem in the process of introducing the classification of personal data, which requires an adequate legal decision, is that often the same personal data can be classified into several types at the same time. In turn, the GDPR divides data according to the "sensitivity" criterion into general data and special personal data. According to the division, stricter procedures apply to sensitive special data regarding their processing, collection, storage, and transfer to third parties (for example, in relation to genetic, biometric or health-related data).

The primary task for the field of big data (Big Data) and machine learning is to define (in accordance with existing laws and regulations) the basic rights and principles related to digital technologies and data; formation of a national data classifier for further definition (clarification) and legislative consolidation of the conditions and types of access that must be provided to each type of data, both at the national and international level. A clear understanding of who has the right to access, control, and use data is important for shaping data management policies and data flows.

Issues of creation and use of information in electronic form are closely related to cyber security. In global practice, critical infrastructure is recognized as the primary objects of cyber protection. According to the Federal Government Cybersecurity Improvement Act [1] adopted in the USA in March 2022, organizations that own or manage critical infrastructure facilities are required to provide the Cybersecurity and Infrastructure Security Agency (CISA) with information about cyberattacks or other significant cyber incidents and response measures taken. Information about ransomware attacks must be provided within 72 hours, and about the amount of the paid ransom – within 24 hours after the cyber incident.

The Law of Ukraine "On the Basic Principles of Ensuring Cyber Security of Ukraine" [12] should provide for similar measures to respond to cyber incidents at critical infrastructure facilities, determine the amount of information to be provided, and mechanisms for interaction with the State Cyber Protection Center, defining the rights, responsibilities and responsibility of the parties. Joint-stock companies – owners of critical infrastructure objects – must necessarily disclose a certain amount of information about cyber incidents to their investors and shareholders.

It is also expedient to create a repository of information about cyber incidents by the State Center for Cyber Protection with the definition of access levels to its data for individual enterprises and organizations. It is necessary to determine the volume and content of information about cyber incidents, which is transferred to the State Center for Cyber Protection, the conditions and means of preserving its confidentiality. In order to assess

potential cyber threats and develop adequate measures to respond to them, a mechanism for using information about cyber incidents contained in the repository, which can be used by business entities and other enterprises, should be developed, which takes into account the requirements for the content, conditions and means of providing this information in order to prevent leakage personalized data to prevent the provision of excessive information, disclosure of commercial secrets, etc.

In the context of the implementation of the Law of Ukraine "On the Basic Principles of Ensuring Cyber Security of Ukraine" [12], the Cabinet of Ministers of Ukraine should develop methodological recommendations for managing cyber security at enterprises and institutions, which contain standard architectures, organizational processes and metrics for measuring the level of cyber protection, requirements for the competencies of key personnel and professional certifications, mechanisms for managing vulnerabilities and responding to cyber attacks, as well as the procedure for reporting on the state of cyber security.

In view of the EU integration, Ukraine's participation in international programs and projects is important. Thus, as part of the EU4Digital program of the European Union [8], which supports the harmonization of digital markets in the countries of the Eastern Partnership, a number of pilot solutions are being implemented in Ukraine, including eDelivery, eCustom, eCommerce, which will soon be able to be applied by all Ukrainian companies, which will allow accelerating digital transformations in national economy. The Ministry of Digital Transformation is a key partner in cooperation with EU4Digital for testing these solutions in Ukraine. In the area of e-commerce, EU4Digital supports trade facilitation and harmonization between Eastern Partner countries and the EU, promoting common frameworks for e-commerce, e-customs and e-logistics and working on digital transport corridors. Standards related to electronic commerce are implemented by the Ministry of Infrastructure of Ukraine, in particular, postal standards are provided by the National Commission, which carries out state regulation in the field of communication and informatization. International (UPU) and national standards are being implemented. Ukraine is a partner of the European Committee for Standardization. As part of this initiative, the EU supports the reduction of roaming tariffs, the development of high-speed broadband to stimulate the economy and the expansion of electronic services, coordinated cyber security and the harmonization of digital structures in society, in areas from logistics to health care, skills development and job creation in the digital industry. The recommendations for Ukraine developed by the EU4Digital Program relate, in particular, to work on the implementation of EU legislative and regulatory acts in the field of e-commerce to the relevant legal field of

Ukraine. The accession of Ukraine in July 2022 to the EU EU4Health Program [9] will contribute to the reduction of direct losses that occurred as a result of military actions, and will finance Ukrainian state and private projects that will be implemented in the process of Ukraine's post-war reconstruction.

A significant restraining factor of digitization in Ukraine as a whole and the implementation of legislative and regulatory acts of the EU regarding the digital economy and society, in particular, is the lack of a systematic study of the ICT complex, in terms of determining its main role in the development and development of the digital economy and information society. The urgent issue is the implementation of structuring and scientific substantiation of the sectoral composition of the ICT complex using international experience and the specifics of the state of the national economy of Ukraine. It is also necessary to form a collective statistical group "Sector of information and communication technologies" for the organization of regular collection of primary statistical information and accumulation of necessary statistical reporting on this sector. Thus, based on the review of the literature and materials of international analytical centers, made by the team of authors of the monograph "Digitalization of the Ukrainian economy: transformational potential" [4], it is possible to draw a conclusion about the structure of the ICT complex, which includes ICT services (development and implementation of ICT, software development provision and its support, development and support of databases), ICT – industry (production of electronic devices, production of component data centers, production of elements of electronic networks), as well as ICT infrastructure. The latter is defined as "a set of computer equipment, telecommunications equipment, data transmission channels, and information systems, means of switching and management of information flows, organizational structures, legal and regulatory mechanisms that ensure their effective functioning, as well as systems for ensuring computer literacy of the population , professional training and retraining of specialists in the ICT sector".

In order to ensure the effectiveness of state policy in the areas of digitalization, digital development of the economy and society, it is advisable to form it in accordance with the goals of the general economic development of the country and to coordinate it with scientific, technical and industrial policies. An urgent task is to analyze the possibilities of assigning to priority production the segment of industries for the production of fiber-optic cables and the production of measuring, testing and control equipment, the products of which are critical for the creation of distributed generation systems, "smart" power grids and the implementation of digital monitoring systems in the energy sector of Ukraine . It is appropriate to use the

experience of developed countries in Europe and Asia regarding the need to stimulate the development of the microelectronics and digital technology industries to ensure the country's competitiveness on world markets. In particular, Germany, Great Britain, Singapore, China, Kazakhstan regarding the development and implementation of state targeted programs, especially in terms of allocation of financial and other resources, establishment of those responsible for implementation, control of validity periods. It is necessary to integrate the development of information and communication technologies with high-tech and science-intensive production in the fields of microelectronics, computer technology, automation, robotics and communication in such fundamentally important legal acts as the Concept and Strategy for the Development of the Digital Economy and Society in accordance with Concepts of state industrial policy, state investment policy and state financial and credit policy, with further development of relevant state target programs based on them.

The list of priority innovative types of industrial activity should include: creation of information and telecommunication systems, complex automation devices, high-performance computer tools; information technologies for control and management of industrial facilities; modern computer technologies for higher education institutions; digital broadband information distribution systems; fiber optic cables; semiconductor materials based on ultrapure silicon, germanium, gallium arsenide. To ensure effective work in these types of activities, it is expedient to establish close cooperation between scientific organizations of the industry sphere and scientific institutions of the National Academy of Sciences of Ukraine.

Conclusion. So, the main challenges in the field of legislative and regulatory support for digitalization include:

- inconsistency among themselves (as well as the absence) of key strategic documents in the field of digitalization, which should determine the directions of development of the field, key tasks and deadlines for their implementation;
- implementation of EU acts in the field of electronic commerce into the legislation of Ukraine;
- creation of a legal field for the application of artificial intelligence technologies, machine learning, Big Data and the development of the virtual asset market;
- the need to adapt the regulatory framework of Ukraine in the field of information security to the requirements of the EU and NATO, as well as taking into account the practice of more developed countries.

At the detailed stage of the Recovery Plan of Ukraine, it is expedient to provide in the National Program No. 8 "Development of economic sectors with added value" and in the "Digital State" project: the development of regulatory and legal support for the formation of the ICT production sector, structuring and working out the mechanisms of its activity; creation of conditions for the development of companies producing software; promoting the spread of software exports; stimulating the domestic market of information technologies and services, as well as ensuring the growth of their export; creation and implementation of new types of final software products; organization of production of domestic computer and communication equipment with gradual increase of components of own production.

The study of legislative support for the processes of digitization of the economy made it possible to characterize in more detail individual components of this process and to eliminate gaps in legislative and regulatory support, to provide practical recommendations for improving the legislative and regulatory framework for economic growth and post-war recovery.

Prospects for further research may include the development of proposals for detailing the Recovery Plan of Ukraine in terms of synchronizing legislative and regulatory support for digital transformations in the context of its integration into the European Union.

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