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E-GOVERNMENT AS AN INSTRUMENT OF MANAGING THE DEVELOPMENT OF SOCIO-ECONOMIC SYSTEMS

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ЕЛЕКТРОННИЙ УРЯД ЯК ІНСТРУМЕНТ УПРАВЛІННЯ РОЗВИТКОМ СОЦІАЛЬНО-ЕКОНОМІЧНИХ СИСТЕМ

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ЭЛЕКТРОННОЕ ПРАВИТЕЛЬСТВО КАК ИНСТРУМЕНТ УПРАВЛЕНИЯ РАЗВИТИЕМ СОЦИАЛЬНО-ЭКОНОМИЧЕСКИХ СИСТЕМ

The article focuses on the analysis of the development of socio-economic systems in the context of the introduction and improvement of e-governance. The theoretical foundations of electronic governance, the level of development of information and communication technologies, the state of electronic governance in Ukraine are considered. The analysis of the network readiness of the country and the drivers necessary for the development of digital technologies was conducted. The ways of improving the management of the development of socio-economic systems on the basis of e-government are proposed.

Keywords: information society; e-governance; e-government, network readiness; information systems; telecommunication systems; socio-economic systems; e-government tools.

Table: 1. References: 12.

Стаття присвячена аналізу розвитку соціально-економічних систем у контексті запровадження та удосконалення електронного урядування. Розглянуто теоретичні основи електронного урядування, рівень розвитку інформаційно-комунікаційних технологій, стан електронного урядування в Україні. Проведено аналіз мережевої готовності країни та драйверів, необхідних для розвитку цифрових технологій. Запропоновано шляхи удосконалення управління розвитком соціально-економічних систем на основі електронного уряду.

Ключові слова: інформаційне суспільство; електронне урядування; електронний уряд; мережева готовність; інформаційні системи; телекомунікаційні системи; соціально-економічні системи; інструменти електронного урядування.

Табл.: 1. Бібл.: 12.

Статья посвящена анализу развития социально-экономических систем в контексте внедрения и совершенствования электронного управления. Рассмотрены теоретические основы электронного управления, уровень развития информационно-коммуникационных технологий, состояние электронного управления в Украине. Проведен анализ сетевой готовности страны и драйверов, необходимых для развития цифровых технологий. Предложены пути совершенствования управления развитием социально-экономических систем на основе электронного правительства.

Ключевые слова: информационное общество; электронное управление; электронное правительство; сетевая готовность; информационные системы; телекоммуникационные системы; социально-экономические системы; инструменты электронного управления.

Табл.: 1. Библ.: 12.

Problem statement. Qualitative and reliable information is the basis of the formation of managerial decisions, the monitoring of needs, the regulation of a particular type of public relations, coordination of the activities of the subjects of management, control over the implementation of management decisions, etc. Management of socio-economic systems is an informational activity, that is, activities related to the receipt, processing and use of information, which allows you to make managerial decisions. Creating, modifying and disseminating information are important components of the governance process, and therefore information is, in a sense, an effective management tool. At the present stage of social development, management activity undergoes significant changes both in terms of content and technology. These changes in the majority are connected with the informational support of all aspects of public life. Today, personal computers and the Internet come to our life much faster than technologies that have changed our lives in the twentieth century. It affects changes in the content and nature of work, including the work of the manager. This work becomes more intellectual of the basis of useful information.

Analysis of recent research and publications. The study of theoretical and methodological aspects of using informational technologies in management of socio-economic systems, considered in studies of Bakaev A. A., Bersutsky J. G., Bersutsky A. J., Bryllyuen L., Wiener N., Glushkov V. M., Ashby W. Ross, England J., Kalyuzhnyy R.A.,

Kastler H., Kolmogorov A. M., Korogodin V. I., Lepa M. M., Martin N., Nykytov V.A., Nicolis G., Porokhnya V. M., Sytnyk V. F., Ursul A. D., Shamrai V. A., Shannon K. Despite the significant achievements of these authors remain poorly studied issues related to the use of e-governance in of information support of management of socio-economic systems.

Allocation of the unsolved earlier parts of the overall problem. In spite the research of management of socio-economic systems, the problems of implementing effective information support with using e-governance not enough researched. One of the important problems is using of Internet-like technologies to improve of information support of management at all levels of social-economic system. Therefore, the problem of using Internet and e-governance to support of management in social-economic systems is particularly relevant.

The objectives of the article. The purpose of the article is research of information support of management in social-economic systems with using of e-governance. The object of the study is the process of formation and using of Internet-like technologies and e-governance to information support of management. The subject of research is theoretical concepts and practical approaches to the introduction of Internet-like technologies and e-governance to information support of management in social-economic systems.

The main results of the study. Information as a collection of data, facts, characteristics of certain subjects, phenomena, processes, events, etc., collected and systematized into a usable form, forms the basis of management of socio-economic systems. In essence, all managerial processes are nothing more than a search, fixation, analysis, evaluation, consolidation, and the dissemination of information, that is, information that relates to the reflection, knowledge and transformation of various forms of human activity. However, in management, interaction is not with all the information, but only with that which is directly necessary for the formation and implementation of public-management impacts and contained in managerial decisions [3]. Information itself is the subject, means and product of management work. In fact, the effectiveness of management depends on the level of organization of its collection, processing and transmission. Through the management bodies are moved a great deal of varied and dynamic information, since any management activity is based on appropriate information provision [1].

American sociologist and futurologist E. Toffler expresses the view that modern society is moving to a new technological revolution and creating so-called Third civilization. The first was an agrarian civilization and the second is industrial civilization. This Third wave leads to the creation of a post-industrialist civilization in which the information acquires the greatest social value. Under such circumstances, a significant increase in the amount of information exchanged by individuals leads to the emergence of an "information society", the formation of which is associated with the predominance of the information sector of the economy. In the information society capital and labor that are the bases of industrial society give way to information and knowledge. Methods of production of the Third Wave strengthen the organizations' desire to receive more information, handle it and distribute it with using more complex ways, affecting the informational environment, as well as physical or social environment. This value of information generates the struggle for data control. Organizations try to provide more information for public and open access, and therefore they are converted from economic producers to information producers [4].

Information society is considered as a state of development of social and, first of all, industrial relations, in which the bulk of the gross product produced not by material production, but on the basis of the creation and sale of high-tech technologies and information products, that is, the results of intellectual work of citizens. Obviously, when we regard a certain new stage in the development of society, it is more correctly define it on the basis of an analysis of changes in productive forces and industrial relations. From this perspective, the "information society" can be defined as a society in which the main subject of the work of most people is information and knowledge, and tools of work - information technology. Existing public relations are largely determined by this circumstance. Accordingly, the

economy of the society is focused on the production of primarily information and intellectual products related to the development of new information and new knowledge, their transformation into a kind that is convenient for consumption by other people, and the sale of these products. The ideology of the information society involves fundamental changes in the information policy of the subject of socio-political relations and the strategy of its behavior in the information society. This strategy reflects the possible variants of the behavior (functioning) of this subject (social, political system) in the modern information world. Information or post-industrial society is a phase in the development of civilization, when the main products of production are not things and energy, but information and knowledge [6].

The main features that distinguish such a society from all its predecessors are: creation of a global information space capable of providing a new quality of life; increase of the share of information and communication technologies, products and services in the gross domestic product of the country; the emergence of high-quality new communications and effective information interaction of people on the basis of expanding access to national and world information resources, overcoming information inequality (poverty), meeting human needs in emerging information products and services.

In Ukraine, the development of the information society is slow. But Ukraine is moving towards the development of the information society, the further introduction of information technologies into the life of society. In world rankings it takes above the middle position. According to the "Global Information Technology Report 2016" Ukraine has the 64th rank in the Networked Readiness Index out of 139 countries. Ukraine has an Income Level LM which means that it belongs to countries with lower-middle-income economies. This factor obviously influences the rank of Ukraine in the rating. Networked readiness rests on whether a country possesses the drivers necessary for digital technologies to unleash their potential, and on whether these technologies are actually impacting the economy and society [12].

The drivers are grouped within four subindexes as follows: Environment subindex (Political and regulatory environment - 9 indicators, Business and innovation environment – 9 indicators); Readiness subindex (Infrastructure – 4 indicators, Affordability – 3 indicators, Skills – 4 indicators); Usage subindex (Individual usage – 7 indicators, Business usage – 6 indicators, Government usage – 3 indicators). Impact is measured as a separate subindex: Economic impacts – 4 indicators, Social impacts - 4 indicators).

The ranking place of Ukraine and subindex values for 2016 is shown in Table. Values of the index are from 1 to 7. In 2016 value was 4.2. In other years Ukraine occupied the following places in the rating: 2015 - 71; 2014 - 81; 2013 - 73. The values of the index were: 4.0; 3.9; 3.9 respectively.

Table

Subindexes of Networked Readiness Index

Subindex	Rank (out of 139)	Value (1–7)
A. Environment subindex	94	3.8
1. Political and regulatory environment	113	3.2
2. Business and innovation environment	67	4.3
B. Readiness subindex	30	5.7
3. Infrastructure	51	4.7
4. Affordability	6	6.6
5. Skills	33	5.6
C. Usage subindex	88	3.6
6. Individual usage	76	3.9
7. Business usage	63	3.6
8. Government usage	114	3.1
D. Impact subindex	69	3.7
9. Economic impacts	59	3.4
10. Social impacts	75	4.0

The highest values have Affordability and Skills indexes. The Affordability indicator is determined by the presence of local and global networks, the number of connections to these networks, the availability of access to geographically remote users, as well as the cost of services. The value of Skills indicator depends on the level of general education and computer training of users. Infrastructure index is greater than the average value. Other indexes have an average value. The smallest of them are: Government usage (3.1) and Political and regulatory environment (3.2). This means that most important indexes that determine the ability of the development of Management of socio-economic systems are the smallest. Therefore, the development of the information society and the information component of state and regional governance are of particular relevance.

The development of the information society in Ukraine will enable the most effective: to increase national competitiveness through development; human potential, especially in high-tech areas; improve the quality of life at the expense of economic growth, providing equal quality access to information, education, services of health care institutions and administrative services of state authorities and local self-government; to expand the employment opportunities of the population, to increase the social protection of vulnerable groups of the population; contribute to the establishment of an open democratic society [8].

With regard to the system of public administration as an information system, it can be noted that it is an extensive network of communication lines and databases that provide the circulation of information, its receipt into all structures and units of state bodies. Particularly relevant is the formation of a system of content information that is needed for rational and effective public administration [2]. Among the units of such information should be distinguished: information that reflects the material, production, social, technical and technological parameters of the objects being controlled; data on norms, incentives regulating production, social services, spiritual and cultural and other activities of managed objects that are of a consumer nature; materials defining the activities of state bodies in the field of management (legislative and other normative legal acts, contractual obligations and scheduled tasks, instructions of the higher level bodies, results of control acts, etc.); information on quantitative and qualitative composition, level of training of personnel. Such units of information should correspond to the level and scale of control subsystems and their units, to be established primarily in the information systems operating within their framework. They need to enter data on the development of scientific and technical thought and its latest achievements, about advanced management experience in the country and abroad [9].

The development of a national system of public administration of European level aimed at increasing the efficiency and quality of the state's implementation of its constitutional functions and the provision of administrative services is impossible without activating the introduction of e-governance. The European Commission, as the highest executive body of the European Union, defines an e-government as an application of information and communication technologies in public administration coupled with organizational change and new skills in order to improve the quality of public services and democratic processes, and to strengthen the support of the state policy. The corresponding tasks and priorities in creating an e-government are derived from the state of development of the economy in the state, social security of citizens or the democratization of society [7].

E-government can be defined as an integrated corporate system of national scale (or regional, departmental, etc.) based on the use of information and communication technologies to increase the efficiency and transparency of government with the ability to communicate with society. In the theory and practice of e-government, the category of e-government technology is used, which should be understood as a set of organizational and technical

measures aimed at ensuring the implementation of the functions of public administration on the basis of information and communication technologies [11].

The Order of the Cabinet of Ministers of Ukraine No. 649-r of September 20, 2017, has identified the development of e-governance as one of the top priorities of the reform of the public administration system. Also, within the framework of the implementation of the Association Agreement between Ukraine, on the one hand, and the European Union, the European Atomic Energy Community and their Member States, on the other hand, Ukraine should ensure the integrated development of e-governance in accordance with European requirements [5].

The main component of e-governance is the e-government - the only infrastructure of inter-agency automated information interaction between public authorities and local self-government bodies among themselves, with citizens and business entities. Implementation of e-governance involves the implementation of a complex and individualized approach to the provision of public services to users, while eliminating them from direct contact with civil servants. The goal of implementing e-government in Ukraine is to achieve European standards for the quality of electronic public services, openness and transparency of power for a person and citizen, public organizations, and businesses.

In this case, it is not about the trivial informatization of the existing system of public administration, but about the use of opportunities for information and communication technologies for the transition to a state oriented to meet the needs of man and citizen, which includes: improving the quality and accessibility of public services, simplifying procedures when reducing administrative costs; improving the quality of administrative and managerial processes, ensuring control over the performance of public authorities and local self-government bodies while ensuring an adequate level of information security; ensuring openness of information on the activities of public authorities and local self-government bodies, expanding access to it and providing for the direct participation of individuals and citizens and civil society institutions in the process of preparation and examination of draft decisions that are adopted at all levels of government. Implementation of e-governance in Ukraine will ensure a qualitatively new level of governance of the state and society as a whole will strengthen trust in the state and its policies, improve interaction between public authorities and local self-government bodies, business, citizens and civil servants [10].

At the present stage of development of the country it is possible to use conservative or transformational ways for the further development of e-government. The conservative way does not significantly change the existing principles and objectives of the development of the existing e-governance infrastructure, which could lead to a lag behind the world's pace of development. Instead, the transformational path is revolutionary and emphasizes the strengthening of the functionalities of e-governance and the reduction of government spending on the exercise of power through the use of modern innovative approaches, methodologies and technologies, legal regulation of the principles of "default digital", "one-time input of information "and" default compatibility", as well as application of promising forms of organization of implementation of tasks and projects of development of e-governance, in particular public-private partnership. In order to achieve these objectives it is necessary to ensure the implementation of complex measures in the following areas: modernization of public services and development of interaction of power, citizens and business with the help of information and communication technologies; modernization of public administration with the help of information and communication technologies; management of e-government development.

Conclusions and suggestions. An analysis of the information society indicates a significant lagging behind Ukraine's global pace of e-governance development and the need to improve public policy in this area. To improve the state of e-governance, a number of top-priority issues need to be solved: increasing the level of unified coordination, control and

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interaction of customers with tasks and projects in the field of information and development of e-governance; increase in funding for tasks and projects in e-governance; improving the quality and effectiveness of projects implementation in this area; improvement of the regulatory framework for e-governance; improving the quality of the development, implementation and support of information and telecommunication systems and resources; formation of the basic information and telecommunication infrastructure of e-governance; creation of the system of automated data exchange and interoperability between information and telecommunication systems of the authorities; raising the level of information security and information security; to increase the pace of implementation of electronic forms of interaction between authorities and individuals and legal entities; to create a system of electronic identification and authentication of individuals and legal entities during interaction with authorities; increase the pace of development of internal systems of electronic document management and support of making managerial decisions; to increase the level of readiness of civil servants and employees of local self-government bodies, individuals and legal entities for the introduction and use of e-government tools; to overcome the digital inequality; to increase the level of citizens' participation and control in this area.

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