

Вважаємо, що система фінансового моніторингу щодо протидії легалізації незаконних доходів повинна носити комплексний характер і створювати умови для підвищення ефективності регулювання відносин як на міжнародному, так і на внутрішньодержавному рівнях, сприяти організації нормального функціонування основних економічних інститутів держави і ринків товарів і послуг, а також забезпечувати стабільне і стійке економічне зростання України.

#### Список літератури

1. Бисага К. В. Державне управління у сфері протидії легалізації (відмиванню) доходів, одержаних злочинним шляхом: європейський досвід для України: дис. на здоб. наук. ступ. к.н. з держ. управл.: 25.00.01 – теорія та історія державного управління. Івано-Франківськ, 2018. 219 с.

2. Возняковська К. А. Фінансовий моніторинг як інструмент протидії легалізації (відмивання) злочинних доходів». 2012. Вип. 1. С. 79-90.

3. Коновалов О. В. Зміст фінансового моніторингу у системі економічної безпеки вітчизняних банківських установ. Право і суспільство. 2011. № 6. С. 56-61.

4. Про запобігання та протидію легалізації (відмиванню) доходів, одержаних злочинним шляхом, фінансуванню тероризму та фінансуванню розповсюдженню зброї масового знищення : Закон України від 06.12.2019 р. № 361-IX. URL: <https://zakon.rada.gov.ua/laws/show/361-20/ed20191206#Text>

5. Романченко Ю. О. Фінансовий моніторинг як інструмент запобігання легалізації злочинних доходів. Науковий погляд: економіка та управління. 2017. № 1. С. 69-75.

### INTEGRATION OF E-GOVERNMENT IN THE SOCIO-ECONOMIC SYSTEM OF THE INFORMATION SOCIETY

*Kravtsov O.*

*PhD,*

*associate professor at Donetsk national university of economics and trade named after M. Tugan-Baranovsky, Krynki Rih, Ukraine*

DOI: [10.24412/9215-0365-2021-64-3-26-31](https://doi.org/10.24412/9215-0365-2021-64-3-26-31)

#### Abstract

The article analyzes the features of the formation and development of the concept of the information society, as well as the experience of the practical implementation of «e-Government» in countries with developed capitalist economies. The purpose of the study is to identify patterns and key factors that must be considered at different stages of the implementation of e-Government technologies. The object of research is the theoretical foundations of the implementation of information and communication technologies in public administration. The subject of the research is modern e-Government technologies.

According to leading scientists, the rapid expansion of the information space and the availability of information significantly influenced public relations, which led to the transition to a new social system, which was called the «information society». In the information society, the state uses various information and communication technologies to implement its functions more and more. At the same time, social relations are transferred to the virtual space, where, using data-processing algorithms based on them, certain management decisions are developed. Firstly, information technology enables individuals to directly contact with public authorities through electronic communications. Secondly, the convenience of such communications should always be accompanied by the reliability of their processing algorithms. Otherwise, the individual will become a hostage to the «electronic world» in which his own voice will be dissolved in millions of other virtual voices.

Using the general scientific methods of abstract logical analysis, induction, and deduction, the advantages and disadvantages of various approaches to the functioning of the «e-Government» are revealed. The article also discusses the problems and causes of digital inequality as a new phenomenon inherent in the information society.

**Keywords:** information society, e-Government, e-Administration, e-Citizens, e-Services, e-Society, Open Data, interaction sector, digital inequality

**JEL classification:** H70, L86, O38, P16

#### Introduction

The main prerequisite for the sustainable democratic development of society is transparent and open power. The openness of government is the key to the implementation of effective policies. State policy should be aimed at creating real civilian control that will ensure the observance of human and civil rights in the state and strengthen citizens' confidence in the government.

One of the instruments to ensure transparency of state policy is the «electronic state», which pro-

vides communication between citizens, business, and government. At the same time, citizens and businesses get unhindered access to public information, which contributes to their participation in the development and implementation of public policy.

The concept of «electronic state» corresponds to the English term «e-Government», which is sometimes translated as «electronic government». This translation is not entirely correct since the concept of «electronic state» is not limited only to the executive branch. The «electronic state» also includes the legislative and judicial branches of government, as well as local government along with the public relations

around them. In the practice of the term «e-Government» using there are also elements of e-justice and e-parliament. Thus, the «electronic government» replaces the concept of «electronic state», which is not entirely justified.

The feasibility of using information and communication technologies in public administration today no one calls into question. However, the boundaries and features of such use continue to be discussed both in the scientific community and among the public and politicians. One of the problems that arise in this case is the security of data that is transmitted through communication channels from citizens, public institutions, and businesses to public authorities and in the opposite direction. Another problem is the need for a clear identification of the applicant himself. If, for example, there is electronic voting for any petition that should be considered by a public authority, then each vote cast for it must be unique and belong to a particular citizen or public institution eligible to vote. If the first two problems are technical in nature and can be solved in the future using software and hardware, then there are still social and legal aspects, the solution of which is not yet clear enough. Firstly, the «electronic state» should be equally accessible to citizens, public institutions, and business entities. Accessibility in this case is understood in a broad sense. This is not only a technical opportunity to access one or another electronic service, but also, for example, an opportunity for older people who do not have computer skills to get an answer to a question of interest from government bodies, an opportunity for small businesses to take tax and other reporting without burdensome additional costs. Secondly, citizens and public institutions should have the right to correct false information about themselves that is in the electronic databases of government authorities. Thirdly, there should be an independent system for verifying the results of electronic voting and arbitration if electronic services are provided poorly. Fourth, a transparent system of information on the business reputation of partners, their property status, and the absence of lawsuits is necessary for business. Such information, of course, is in the executive and judicial authorities. However, its provision to someone without proper legal grounds violates the commercial secret of a business entity. Thus, the social relations that arise in connection with the active use of e-Government technologies need deep and meaningful analysis.

#### **Overview of the research literature**

The theoretical foundation for the concept of «electronic state» is the theory of the information society, which was developed in the second half of the XX century. These theories substantiated the dominant role of information and information resources for the development and existence of society at the present stage. The development of civilization in the future will determine information, which will become, firstly, the main criterion for social stratification, therefore, a source of inequality, and secondly, the main resource for the accelerated development of some countries.

The Western theory of the establishment and development of an electronic state as the main postulate puts forward the idea of the need for equal interaction between the state and society. One of the representatives of this area is the Director of the Center for Informatics for Development, Professor of Manchester University, Richard Heeks.

As a base R. Heeks identifies three dominant blocks of electronic government (Heeks R., 2005):

- 1) electronic administration (e-Administration);
- 2) interaction with citizens (e-Citizens) and provision of services in electronic form (e-Services);
- 3) interaction between the state and the information society (e-Society).

Electronic Administration (e-Administration), according to Heeks, helps to reduce the cost of maintaining the state apparatus by optimizing the internal work of governing bodies. The basis of this optimization is the translation of all information from paper to electronic form, which allows us to automate its processing and simplify the preparation of information necessary for decision-making. The transition to electronic management methods helps to reduce the number of employed personnel by releasing those who perform routine functions related to information processing. The introduction of e-Administration involves monitoring the effectiveness of the use of all resources (not only human resources but also financial, technical, technological, information and others), which also creates the conditions for optimizing the costs of government.

To interact with citizens (e-Citizens), it is necessary to create secure electronic communication channels through which information exchange is established, as well as the provision of electronic services (e-Services). In the future, with the expansion of the information environment, wider layers of citizens may be involved in the process of making managerial decisions in the public sphere. In particular, their proposals should be used to improve the process of providing public services.

In the information society, cooperation between the state and business begins with the translation of all types of reporting of business entities into electronic form. This will significantly save time and resources of small entrepreneurs, simplify the preparation of reports, and make its processing less time-consuming. In addition, the economic activities of public authorities will become more transparent if the information on public procurement and tendering is published in electronic form. In some countries, there is a positive experience with direct online trading. This method of public procurement significantly reduces their cost, simplifies business access to public resources, and thereby makes their spending more efficient.

An important element in the interaction of e-Government and business, which Hicks does not directly mention, may be the access to information or Open Data. Human society is gradually accumulating more and more diverse knowledge. The volumes of data that are generated in the world and accumulated on various media are growing exponentially. Over a decade in the 1970s and 1980s, the total accumulation



of information on electronic media increased from kilo- and megabytes to gigabytes per year. In the next decade, in the 1980-1990s, this volume grew from gigabytes to terabytes per year. In the 1990-2000s, it increased from terabytes to petabytes per year, in the 2000-2010s, from petabytes to exabytes per year (Vishnevskii V.P., Kniaziev S.I., 2017). According to experts, the amount of information in the world doubles every 3-5 years (McKinsey&Company, Digital Identification: A Key to Inclusive Growth, 2019). On the one hand, this reflects the high pace of development of human society in all directions. On the other hand, there is an increasing need for human and technical resources by which this information should be systematized and analyzed. Simple accumulation of information without detailed analysis and conclusions is as useless as recounting stars in the sky. Already today, information analysis is a developing and promising type of business that is attractive, first of all, to intellectuals and intelligentsia. The wider access to information is provided, the more people and business entities will be involved in it.

The European data market in 2020 was estimated at 100 billion EUR. It is for this amount that services related to the processing and analysis of information from open sources or Open Data can be provided. Over four years, the capacity of this market has grown more than one and a half times. A characteristic feature of this market is that entering it does not require significant capital investments from beginners. Therefore, the Open Data market is so attractive to small entrepreneurs.

Government bodies are the collector and custodian of a large amount of information that they do not analyze in full due to a lack of personnel, hardware, and software, or simply because there is no practical need for such an analysis. At the same time, subject to the opening of access to these data, business entities will be able to offer various services related to the processing of Open Data by government authorities. So, in Ukraine, the data on wanted cars is in demand, as well as the data on legal cases of legal entities, on the overdue tax debt, on the volume of imports of various goods into the country. According to the study of the USAID and UK aid project «Transparency and accountability in public administration and services / TAPAS», Open Data processing brought USD 700 million to the Ukrainian economy in 2017, including USD 200 million made up by Ukrainian companies.

Studies have shown that opening access to data has a positive effect on the work of public authorities. With their help, public control over the quality and completeness of the information used in public administration is carried out.

The dominant goal of the e-Society for government is to create and strengthen civil society institutions. This goal can be achieved in various ways, in particular, by creating socio-economic opportunities for the development of local public organizations, strengthening information links between various civil society institutions (public and non-profit structures, business, etc.), informing the public about the reasons and motives for the actions of the authorities. The e-

Society block is by far the most controversial both in the scientific community and among practitioners. On the one hand, contact with the public is necessary to form a positive image of power in society, to regulate public sentiments, and to communicate with leaders of public opinion. On the other hand, civil society is a form of control over the activities of public authorities and an involuntary critic of their decisions. Therefore, the content and formal content of this block may vary. By implementing electronic communications with the public, public authorities can ignore criticism and shape «public relations» for themselves. Public, non-profit structures and business, in contact with state authorities through the e-Society, in turn, will seek a certain political rent, proximity to government institutions, and the ability to influence their decisions.

In a scientific discussion about e-Government, experts point out that this concept itself is already a concept of interaction and a new form of cooperation between the state and citizens in the information society. Proceeding from this, several classifications of interactions that occur in e-Government are even distinguished.

Different researchers call these classifications differently. Some consider them types of interactions, others - sectors. There are several main types (sectors) of interactions: G2C (government - citizens), G2G (government - government), G2B (government - business). Some researchers add another fourth type (sector) of interaction G2E (government - civil servants). There is another fifth type (sector) of interaction - C2G (citizens - government). Moreover, the emphasis is on precisely this area of interaction between citizens and the government. In South Korea, in general, a concept for the interaction of government with citizens has been developed, which at first glance visually almost does not differ from the G2C, but in fact, only in its English-speaking abbreviation G4C (government for citizens) there is a conceptual difference - the government for citizens.

Although the «electronic government» covers many different types of activities and many participants, there are three main subjects of interaction with the corresponding relations: between public authorities (G2G), between government and business (G2B), and between government and citizens (G2C).

#### **Method and scope**

The introduction of e-Government technologies is accompanied by deep transformations in government and public life. This is a global project that affects the interests of the vast majority of citizens, public institutions, and businesses. Today there is no scientifically based algorithm for the implementation of this project. Each country that has embarked on the path of e-Government implementation implements it in a certain sequence of stages. Moreover, both the sequence itself and the content of the stages are set empirically, based on an analysis of the objective conditions for implementation, the readiness of the state apparatus and society to innovate in this area. The application of the «trial and error method» when introducing e-Government technologies is inevitable since such a large-scale project is difficult to plan.

Therefore, the question always arises of which indicators indicate the possibility of moving to the next phase of the implementation project. The development of such indicators is an important scientific task, the solution of which lies in the field of sociology and state statistics (United Nations E-Government Survey, 2020).

One of the key indicators for any electronic service is the number of users and transactions completed. The larger this number, the higher the conversion of the electronic resource, therefore, the more popular it is. In web analytics, quite a few indicators have been developed with which you can evaluate the conversion of a particular electronic resource and the cost-effectiveness of its creation and operation. However, for e-Government resources, these metrics are not always applicable. This is because public authorities are capable of normatively influencing the use of their resources. For example, if a public authority wants to increase the conversion of its electronic resource or service, it can make its use mandatory for users. With this approach, of course, one cannot judge

by the number of visits to a service or resource how much it satisfies customers' requirements. On the other hand, how clients use a service or resource may not always satisfy the requirements of a public authority. For example, customers may request electronic inquiries that are issued automatically, too often for no apparent reason. This creates an additional load on the communication channels.

When forming a system of indicators of the effectiveness of introducing e-Government technologies, it is advisable to use the principle of mutual satisfaction of expectations as a base. Its essence is as follows. In each sector of interaction and the block of e-government, the expectations of the entities that participate in it are determined. For example, in the G2B interaction sector, communication participants are government bodies and business entities. Participants interact online in the e-Society block to develop effective measures to support and develop small businesses in a state or region. Table 1 presents the expectations of each participant from such an interaction.

Table 1

Expectations of the subjects of interaction

<b>G - government</b>	<b>B – business</b>
Reduction of government spending, compliance with contractual terms by the counterparty	Electronic government procurement
Competition during bidding, more favorable terms of sale	Sale of surplus goods from the state reserve to business
	Electronic translation of the following operations:
Timely payment of taxes and fees, simplification of administration	- payment of taxes and fees;
Systematization of the reporting information, reduction of the processing costs	- the provision of tax and other reporting;
The growth of the real entrepreneurs' number	- registration of new companies;
Prevention of corruption at customs, increase of proceeds from customs payments, intensification of foreign economic activity	- filing customs declarations;
Increasing the attractiveness of entrepreneurial activity, preventing illegal actions of business entities	- closing of the business.
Information analysis services market development	Access to Open Data

Expectations presented in table 1 characterize the factors and their values desirable for each participant in communications because of the introduction of a particular e-Government technology. For example, electronic public procurement is characterized by the total amount and frequency of auctions, the variety of items purchased goods and services. If purchases are held in the form of a simple auction, then its result will be an increase in the selling price relative to the starting one. Some indicators may have a quantitative measurement; others will have to be evaluated by experts. Factors are then ranked, and the values of the indicators characterizing them are measured or evaluated.

Based on assessments of the actual values of the factors, the degree of satisfaction of the expectations of the subjects of interaction from the introduction of e-Government technologies is determined. Further, the degree of satisfaction of the subjects of interaction is compared with each other. The approximate equality of the degree of satisfaction of expectations is desirable, since in this case, the number of opponents

and supporters of implementation on opposite sides of the communication channel is balanced, and the introduction of e-Government technologies does not experience much resistance. On the contrary, if there are significant imbalances in assessing the degree of satisfaction of expectations, this may indicate the presence of a large number of opponents of the implementation, which may interfere with it, worsen the results and make it less effective.

In scientific publications on the information society, the theme of digital inequality is increasingly being heard. Digital inequality manifests itself in various forms, which for the most part have not yet been studied. One of the most common examples of digital inequality is the lack of equal access to the Internet for all members of the information society. The development of electronic communications gives hope that technical difficulties will be overcome over time. However, overcoming the socio-psychological factors of digital inequality is not yet easy or even possible.

Each social and age category of citizens is characterized by its own degree of adaptability to in-



novations. Today's youth, as a rule, quickly masters hi-tech novelties and becomes their active user. People of the older generation, on the contrary, are more conservative and less willing to master innovations in the information sphere. For many of them, a regular computer is still terra incognita. In the near future, today's young people will also become conservatives, that is, they will become less willing to change their routine to a new one. This means that in the information society there will always be a disproportion between innovators who are ready to actively introduce and use innovations, and conservatives, for whom adaptation to innovations can be undesirable and even painful. The development of information and communication technologies will always provoke a digital inequality between innovators and conservatives. Moreover, this form of digital inequality is rooted in the socio-psychological characteristics of different generations of people, which are unlikely to change in the near future.

In business, digital inequality is manifested, for example, in the varying degrees of accessibility of Big Data technologies. For effective competition, modern enterprises are forced to process huge amounts of technological, marketing, economic, and other information called «Big Data». To do this, they need modern Big Data technologies, which, due to their specifics, cannot yet be widely disseminated in business. This is due to three main reasons:

- To work with a large amount of information, appropriate computing power and special equipment are needed;
- Highly qualified specialists whose work must be paid high are needed;
- At present, only big business organizations have a large volume of data.

According to Russian researchers, Big Data technologies are most popular in the banking and telecommunications sectors. They are also in demand in the mining industry, energy, retail, logistics companies, and the public sector (Izmalkova S.A., Golovina T.A., 2015). According to some scientists, the advantages that large companies get from the use of Big Data technologies provide them with unreasonable competitive advantages compared with small and medium-sized businesses. Indeed, the issue of competition in the era of using «Big Data» is becoming much more complicated. The consistent technological development, which is manifested in the introduction of new information technologies, can hardly be considered a manifestation of unfair competition. It is logical to assume that the use of «Big Data» allows large companies to make more effective management decisions that improve the quality of goods and services which are produced. However, with the high efficiency of the antitrust authorities, the Big Data technologies will not interfere with market competition (Yuchinson K.S., 2017).

Thus, digital inequality in business is due to an objectively different degree of accessibility of information resources for various entities. This inequality should encourage outsiders to introduce more actively modern information technologies in pursuit of leaders.

Leaders must also keep abreast of the latest information technology trends to maintain their leadership status. For the field of information technology to maintain its innovative potential, it is necessary to ensure equal access to innovation for all entrepreneurs, regardless of the scale of their activities. This is difficult to put into practice since most business software products are owned by large multinational private companies Microsoft, Oracle, SAP, and others.

The most acute digital inequality is manifested in the G2G interaction sector between public authorities. In this sector, there is an exchange of data between subjects of power. This refers to the interagency interaction of government bodies at all levels, interdepartmental interaction within each body, as well as interaction with local authorities. Data exchange is carried out through electronic document management on the principles of unification, interchangeability, and compatibility. State authorities store information in electronic registers, the data of which is not always compatible with each other due to the different structure. This slows down and complicates the exchange of information. A large number of electronic registers in public authorities is associated with a variety of areas of their work: taxation, customs, financial management, data collection for statistics and censuses, elections, development planning, health care, education, and social security, social insurance and agriculture. There are areas related to the activities of law enforcement agencies, national security and defense, as well as scientific institutions. Given the diversity of work directions, unification, interchangeability, and data compatibility are key requirements for effective information exchange in the G2G sector. At the same time, there is a digital inequality in this sector due to the different technical equipment of public authorities and the degree of development of network infrastructure, different software used and the level of staff qualifications. It is exacerbated by departmental fragmentation and limited access to budgetary financial resources. Because of digital inequality, the challenges of introducing e-Government technologies in the public sector are more acute and often conserved. To them, as a rule, are added the inertia of the state apparatus and the lack of budget funding. Several factors drive initiatives in the G2G sector. One of them is the interest of the authorities themselves in improving the efficiency of management processes related to both internal and external document circulation. One of the expected benefits from investments in e-Government technology is to reduce costs achieved by streamlining management processes and reducing the number of employees needed to complete tasks.

In Recommendation Rec (2004) 15 of the Committee of Ministers to member states on electronic governance («e-governance»), in particular, the following steps for the development of e-governance in the EU states are given:

- develop a policy for introducing e-governance technologies, relevant legislation and practice of its application in this area;
- involve foreign and national experts in cooperation with the aim of developing a common strategy

in the areas of e-governance implementation and development;

- develop an e-governance strategy that is fully consistent with the principles of the national organization of democratic governance; contributed to the positive development of democratic processes, etc.

These recommendations are based on the experience of developed countries in which the implementation of e-Government technologies has already passed several stages and has shown certain positive results. In general, the introduction of e-governance in the EU countries is a sustainable trend, which in the future will become a driver for the development of the information society.

#### Conclusions and discussions

The introduction of e-Government technologies into the socio-economic system of the information society is mandatory and inevitable. The speed and efficiency of this process in each state will depend on the readiness of the authorities and society as a whole to perceive and master these new types of interactions. The main hotbed of resistance is the digital inequality in various forms. The study of these forms is an important scientific problem. Its solution should lead to the development of sound recommendations to overcome the digital inequality. To monitor the implementation of e-Government, a system of performance indicators is needed. Its development can be based on the principle of meeting the mutual expectations of interaction participants: the higher the mutual satisfaction, the more effective the implemented e-Government tool is, the more it meets the expectations of users.

#### Acknowledgements:

The author would like to thank Professor Kendiukhov Oleksandr for his comments.

#### References

1. Chernavskiy D.S. (2017) Synergetics and information. Dynamic information theory. Moscow: Editorial URSS, 304 p.
2. Heeks R. (2005) Implementing and managing e-Government. London: SAGE Publications. 287 p.
3. Izmalkova S.A., Golovina T.A. (2015) The using of the «Big Data» global technologies in the economic systems management. *Izvestiya Tula State University. Economic and legal sciences*, no 4-1, pp. 151-158
4. McKinsey&Company. Digital Identification: A Key to Inclusive Growth (2019). Available at: <https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/digital-identification-a-key-to-inclusive-growth>
5. Madykh A.A., Okhten O.O., Dasiv A.F. (2017) Analysis of the world experience of economic and mathematical modeling of smart enterprises. *Economy of Industry*, no 4 (80), pp. 19-46. DOI: 10.15407/econindustry2017.04.019
6. Organization for Economic Cooperation and Development, Public Governance and Territorial Development Directorate, Recommendation of the Council on Digital Government Strategies (2014) Available at: <http://www.oecd.org/gov/digitalgovernment/Recommendation-digital-government-strategies.pdf>.
7. Peremitina T.O. (2014) Information Systems Life Cycle Management. Tomsk: El' Kontent, 86 p.
8. Povroznik N.G. (2017) Information and analytical technologies of state and municipal administration. Perm: Perm State University, 164 p.
9. Recommendation of the Committee of Ministers to member states on electronic governance («e-governance») Rec(2004)15 (2004). Available at: [https://search.coe.int/cm/Pages/result\\_details.aspx?ObjectID=09000016805db3b2](https://search.coe.int/cm/Pages/result_details.aspx?ObjectID=09000016805db3b2).
10. Scholl, H. J. (2020). The Digital Government Reference Library (DGRL). Versions 16.0-16.5. Available at: <http://faculty.washington.edu/jscholl/dgri>
11. Shubina V.I., Kuznetsova E.A. (2017) «Big Data»: granitsa innovatsiy, razvitiya i konkurentsii [«Big Data»: the framework of innovation, development and competition]. *Kontsept*, no S13, pp. 26-29 Available at: <https://e-koncept.ru/2017/470161.htm>
12. Vishnevskii V.P., Kniaziev S.I. (2017) Smart Industry: prospects and challenges. *Economy of Ukraine*, no №7(660), pp. 22-37
13. We Are Social. Global Digital Report (2019) Available at: <https://wearesocial.com/global-digital-report-2019>
14. Yuchinson K.S. (2017) «Big Data» and competition law. *Law. Journal of the Higher School of Economics*, no 1, pp. 216-245. Available at: <https://law-journal.hse.ru/2017--1/204343755.html>
15. United Nations E-Government Survey (2020). Available at: <https://publicadministration.un.org/en/Research/UN-e-Government-Surveys>
16. UN E-Government Knowledgebase. Available at: <https://publicadministration.un.org/egovkb/en-us/data-center>