

# E-government Potential in Social Service Delivery: Regional Context

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**Abstract.** The article identifies the potential for introducing a system of electronic social services in the context of electronic government development in Ukraine. The definition of an electronic social service as a social service is given, fully or partially provided with the help of social protection institutions online services and the population social services, to individuals, certain social groups who are in difficult life circumstances. It has been determined that the development of modern information use and communication technologies and the Internet already allows the use of various forms of providing and receiving electronic social services, is spreading due to the state policy of public services digitalization ("the state in a smartphone"), among which a special demand is registration in electronic the form of social benefits, benefits, pensions and the like. According to the results obtained, the greatest potential for introduction into the social service system is possessed by social services, psychological online consultations, distance learning and socio-economic services. Among the factors for optimizing the implementation of electronic social services, the most significant identified are the following increases in budget funding, computer population, information support for the introduction of the electronic social services system through social advertising, increasing the level of technical support and access to the Internet.

## 1 Introduction

The modern information age, the challenges of globalization, and now pandemic threats (like the COVID-19 pandemic) require the introduction of digital (electronic, remote) forms of providing public services, including social ones. The concept that justifies the feasibility of using information and communication technologies in public administration is the concept of electronic government.

The British "White Paper: Modernising Government" examines this issue from the point of view of form: the structure and composition of services required for ordinary users and non-governmental organizations, expanding the range of services provided, while ensuring full coverage of citizens with public services, improving the use of information [11], and the EU programs for the introduction of e-government [8, p.8] provide for the priority of providing public services (both administrative and social) online, the widespread distribution of broadband access and secure information infrastructure.

The Concept for the Development of Electronic Governance in Ukraine provides the following definition: "E-government is a form of public administration organization that helps to increase the efficiency, openness and transparency of public authorities' activities and local governments using information and telecommunication technologies to form a new type of state focused on satisfaction needs of citizens" [6]. According to Yu. Solomko, "e-government provides for a way of organizing state

power using systems of local information networks and segments of the global information network, which ensures real-time operation and makes the daily communication of a person with the authorities as simple and accessible as possible" [7, p.136]. T. Nizhniy, having analyzed publications on e-government, defined e-governance as a form of public administration organization that contributes to increasing the efficiency, openness and transparency of the activities of public authorities and local self-government bodies using information and telecommunication technologies to form a new type of state focused on meeting needs citizens [4, p.113], that is, a service state, the basis of which is the provision of services, including on the basis of information and communication technologies, is expressed in such a concept as "e-state (which, by the way, is already being implemented in many countries, for example in Estonia [1, 9]).

Hence, we see that e-government appears in a general sense as a form of public administration / governance organization, which, thanks to the widespread use of information and communication technologies, contributes to an increase in the efficiency, openness and transparency of public administration activities, the provision of a complex of administrative and social services for a person remotely.

Thus, the purpose of the article is to identify the potential for the introduction of electronic social services in Ukraine (on the example of the Zaporizhzhia region). The objectives of the study were: 1) to identify the awareness level of the electronic

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social services provision; 2) determination of the possibilities for the provision of social services in remote (electronic) form at the regional level; 3) determination of factors for optimizing the development of social services in the system of electronic services.

In the main electronic document of Ukraine, which was approved on September 20, 2017, "Concept for the development of electronic government until 2020", the need to introduce online on average 100 of the most important services for citizens and business was noted. The key tasks are the implementation of a single portal for the provision of all electronic services from one resource, as well as the implementation of electronic contracts and the popularization of all services.

However, the lack of reliable and accessible electronic identification remains a barrier to the development of electronic services and other forms of electronic interaction. Therefore, it is necessary to introduce MobileID, which will make electronic identification more widespread and popular among citizens. The key task remains to fill the unified demographic register and issue ID-cards with digital signatures, as well as the introduction of electronic trust services.

All public services (state, municipal, administrative, social, management) that are provided in electronic form using information and communication technologies should be considered electronic.

Social services are one of the subtypes of public services that differ from management and administrative services in that: aimed at a limited target audience, namely families, children, youth, certain social groups or individuals who are in difficult life circumstances and need an outsider help; don't provide for the registration of an administrative act as a result of the public service provision; can be provided both individually and in group; by-laws expand the possibilities of receiving social services, providing for the possibility of receiving them without a written application and even anonymously (for example, paragraphs 3.7, 3.9); in the practice of public administration are regulated by a special law.

We offer the following classification of electronic services: by type of electronic submission, by field of activity, by subject of publication, by consumers, by place of receipt from the point of view of the client and from the point of view of attraction to the electronic service.

1. By the content of the electronic services provision. According to the Procedure for the provision of information and other services using the electronic information system "Electronic Government", four types of electronic information services provision are distinguished: informing (providing directly information about state (administrative, social) services); one-way interaction (the user is provided with the opportunity to receive an electronic form of the document); two-way interaction (the possibility of processing the electronic form of the document, including identification is provided); carrying out transactions (electronic implementation of decision-

making capabilities and their delivery). From a technological point of view, the provision of services of the first and second types has now been completely solved, and the problems of providing services of the third and fourth types (requiring identification of the parties to electronic interaction and associated with the use of electronic digital signatures) require their solution.

2. By the field of activity, electronic services are subdivided into the following information services; consulting services; services for the preparation of political decisions or laws; services for interaction between institutions and organizations; assistance and assistance services; services maintenance of the state order; services for the implementation of the supervision functions and control by government agencies.

3. by the subject of the services provision are divided into those provided by the central executive authorities, local government bodies, local government bodies and subjects of delegated powers.

4. By consumers, electronic services are divided into services for public authorities (use of information registers, provision of electronic signature status, etc.), for individuals, for legal entities.

5. According to the place of receipt are divided into: public authority; "Single window"; government portal.

6. By the form of receipt: fully automated and partially automated: fully automated - services in which the relevant processes (acceptance of applications, provision of services, payment, delivery, etc.) are performed in electronic form; personal contact and participation of a person (civil servants) in the provision of such services are minimized or completely absent; partially automated - services in which some of the processes are performed electronically, and some - manually.

7. Based on the results of the receipt, they may either provide for the registration of an administrative act, or not provide for its registration.

On the development of criteria for the electronic social services quality, then here can be the criteria that are defined in the Concept for the development of the providing administrative services system by the authorities, "which should serve as a model for administrative services in electronic form." These criteria, according to the Concept, are: 1) efficiency - meeting the needs of an individual or legal entity in administrative (social) services; 2) timeliness - the provision of administrative (social) services within the time period established by law; 3) accessibility - the actual ability of individuals and legal entities to apply for administrative (social) services; 4) convenience - taking into account the interests and needs of service holders in the process of organizing the administrative (social) services provision; 5) openness - unhindered receipt of information necessary for obtaining a state (social) service, which is posted on information boards in administrative bodies, institutions of social protection and social services for the population on their websites and printed in official publications and booklets; 6) professionalism - the appropriate

qualifications level of employees from the administrative governing body for managing social protection and social services for the population.

In our opinion, the process of providing electronic social services should proceed as follows: 1) there is a preparation and placement of information about a social service by the relevant management body for social protection of the population on the official website and / or in the Unified State Portal of Administrative Services and Social Services; 2) individuals and legal entities are informed about the procedure for the social services provision; 3) receiving and registering an electronic application from a person for receiving a social service using information and communication technologies is ensured: using information and communication technologies, a person is identified; remotely, electronic payment for the service provision is carried out; 4) the received electronic application of the person is transferred to the departmental information resources using information and communication technologies: the fact of the electronic application transmission is electronically recorded; control over the consideration of an application for the electronic service provision using information and communication technologies; provides the opportunity to provide electronic documents required to receive the service; 5) the electronic service provision is completed by the person receiving an electronic document or receiving it in paper form at the time specified in the electronic queue.

## 2 Materials and Methods

The methodological basis of the study is made up of general scientific methods' of social phenomena and processes' cognition (analysis, synthesis, generalization, classification) and sociological methods for obtaining empirical data (mass and expert sociological survey). The empirical base of the study is the results of: 1) a mass sociological survey among clients of social services and social service institutions in the Zaporizhzhia region (n = 400, November 2020). The sample is quota, randomized, distributed by sex, age, place of residence (urban and rural areas). The error is no more than 2.2%; 2) an expert survey among managers and workers of social services and social service institutions (n = 100, November 2020).

In the field of social services, e-government, in our opinion, may be the most effective model of e-government called "Service Agency" (*Agency on Demand*), the essence of which is to provide electronic social services.

Let's try to define the concept of "electronic social service", relying on O. Bernazyuk's interpretation of an electronic public service [2, p.198]: an electronic social service is a social service that is fully or partially provided through the online services of social protection and social services for the population, individuals, individual social groups who are in difficult life circumstances, cannot overcome on their own and need outside help, is carried out through the

use of information and telecommunication technologies, ensures its efficiency, accessibility, convenience, mobility of receiving social services.

In the context of the e-government development in Ukraine, the most common services today are administrative services related to the execution of documents and obtaining information from public authorities and local governments. Regarding the system of population social protection, the most widespread are such social services as registration of housing subsidies, benefits, social payments, that is, mainly socio-economic services, and social information services (information on the activities of social protection institutions, employment, etc.) [2].

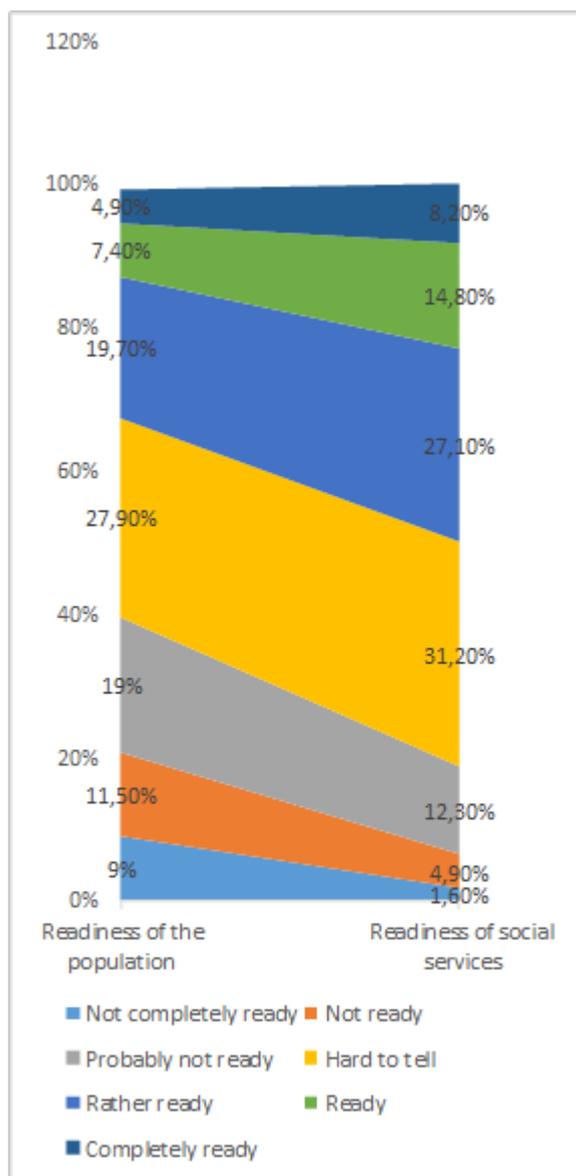
The current state of the provision of legally defined social services in electronic form and the possibility of their implementation and development is characterized as follows: 1) socio-economic services are provided through the electronic services of government sites [5], and the provision of such social services is associated with remote processing of documents for receiving social assistance, pensions, social benefits and the like; 2) legal services through online services in the field of social services relate to the areas of persons in difficult life circumstances legal protection, which can be provided in electronic form (online consultations, inquiries, correspondence); 3) social and medical services provide an information component - displaying on the websites of institutions and social service institutions a list of medical organizations, specialists and services that can be received by persons in difficult life circumstances; 4) the provision of social and domestic services presupposes the availability of information on the list of available social and domestic services, their tariffication and the possibility of receiving free of charge, information on the qualifications of specialists providing social services; 5) a feature of the electronic technologies use in social and educational services provision is the introduction of SMART-learning technologies [10]; 6) the psychological services provision in electronic and online forms is possible: firstly, as an appeal through the line of trust via Skype in emergency and crisis situations and circumstances; secondly, as the provision of the first psychological counseling; third, as an additional form of psychological support for the client; fourthly, as a form of psychodiagnostics examination of the client; 7) today employment services can be obtained in electronic form on the websites of the State Employment Service, other commercial and non-commercial organizations.

In the context of the introduction and development of e-government in Ukraine, the sphere of social protection and social services for the population, in particular, is at the initial level of using online services. Now the following electronic services are available on the website of the Ministry of Social Policy of Ukraine: 1) assistance with the birth of a child; 2) the appointment of subsidies; 3) the system for calculating pension provision [3]. The Information and Analytical Management System for Social Support of the Population of Ukraine (E-SOCIAL), which is being created within the framework of the project

"Modernization of the Social Support System for the Population of Ukraine" for funds from the International Bank for Reconstruction and Development loan No. 8404-UA, is under development.

### 3 Results and Discussion

To highlight the possibilities and potential of using e-government tools in the system of providing social services, a massive sociological and expert survey was conducted (November, 2020). The survey revealed an above average level of awareness of the possibility of providing (receiving) electronic social services among experts and clients (more than 50%), with the majority of the surveyed clients of social services in Zaporizhzhia aged 15 to 30 years.



**Fig. 1.** Assessment of the social workers readiness to provide electronic social services and the population to receive them (clients)

The fig. 1 shows the results in a comparative measurement of the population and social services readiness to provide social services in electronic

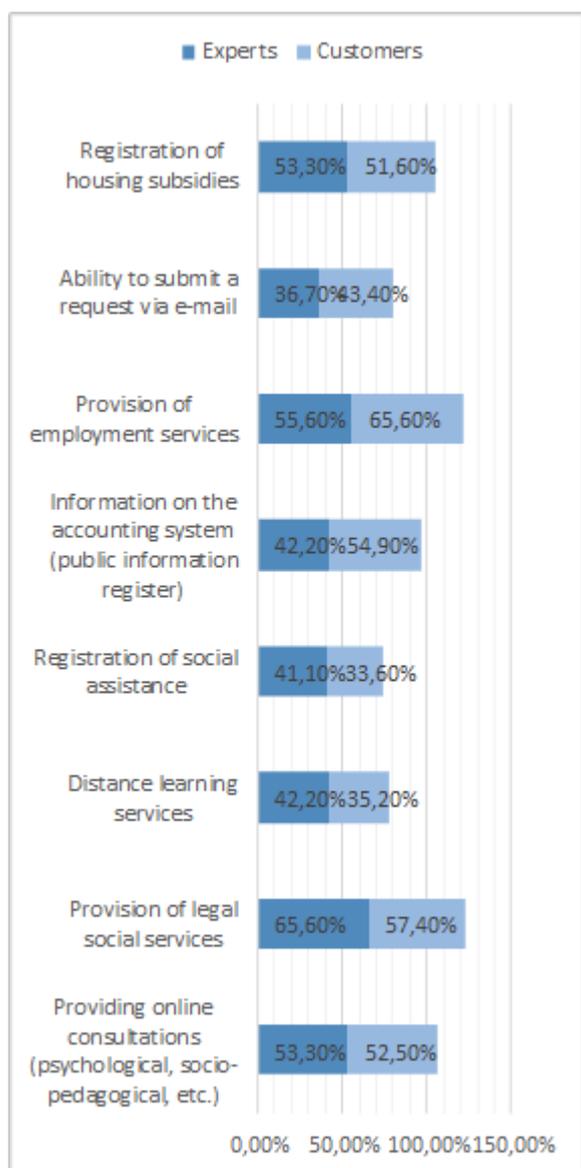
(remote) form from the point of view of the interviewed clients: 50% of clients positively assess the readiness of social services to provide electronic social services.

So, clients of social services believe that social services are able to provide electronic social services (50% of them were identified), while 40% of the interviewed clients note that the population is not ready to receive social services remotely, which may be due to the pessimistic attitudes of the population, does not have both subjective motivation for remote communication and objective conditions for receiving electronic services (lack of Internet, technical support , ICT skills, etc.).

With regard to the population, we can say that there is a lack of trust in digital services. Several factors influence this attitude of the population: first, there is no motivational component for the population to want to communicate remotely; and secondly, technical problems persist to this day. The point is that there are still places in Ukraine where the Internet is absent or the signal level is extremely weak, most consumers of services in the social field simply do not know how to use personal computer programs and so on. In parallel, it is possible to note an ambivalent attitude towards the adoption of electronic services in the social sphere on the part of the experts who were interviewed. Having made some similarities, we can state the following: consumers of social services in regional centers, where there are fewer technical problems, have a positive attitude to the electronic services provision, but the professionals in social work and the clients of the city perceive negatively and their attitude to this type of service is negative.

Such an ambiguous view indicates the following: a positive attitude of social workers in the region, associated with the ability to simplify the social services provision in remote settlements and villages, thereby reducing the burden; negative perception of the population from the Zaporizhzhia region districts, which is represented by the older age group, do not have both subjective motivation for remote communication and objective conditions for receiving electronic services (lack of the Internet, technical support, ICT skills, and so on.)

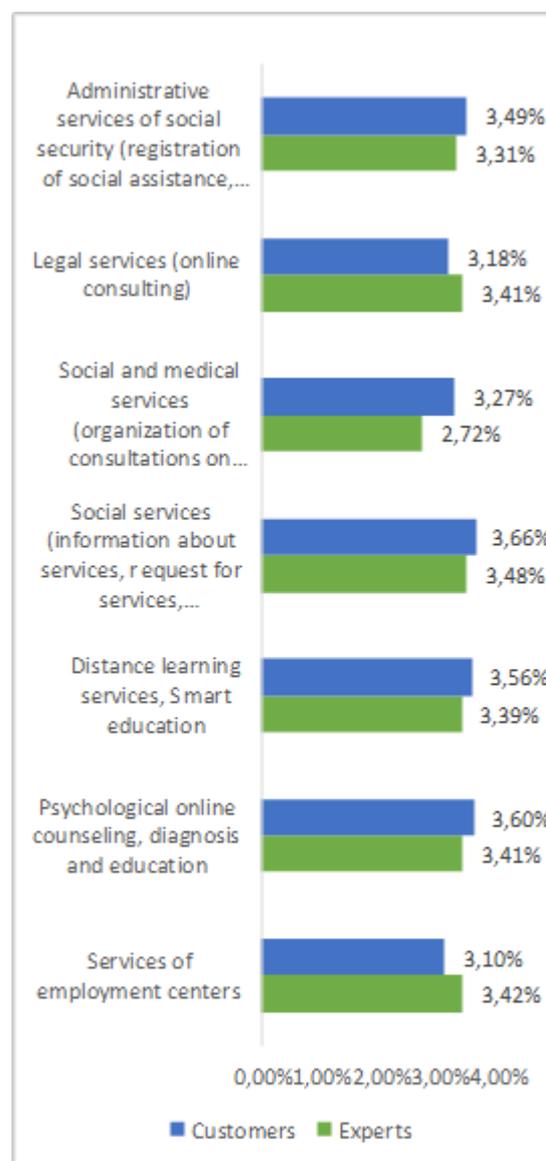
Today, a list of certain electronic services associated with the system of social protection and social security of the population is already functioning. The respondents were asked to identify the 4 most accessible (Fig. 2).



**Fig. 2.** Availability of electronic services for the population

Thus, experts define the following electronic services for the population, which, in their opinion, have a high level of accessibility: 1) the ability to submit an electronic request; 2) distance learning services; 3) providing online advice and registration of housing subsidies; 4) registration of social assistance and employment services; for clients of social service institutions, these are: 1) distance learning services; 2) submission of an electronic request; 3) registration of social assistance; 4) registration of housing subsidies and online consultation.

Deserves special attention to determine the assessment of the social services implementation defined at the legislative level in electronic form. The respondents were asked to rate the possibility of providing the following social services in electronic form on a 5-point scale (Fig. 3).

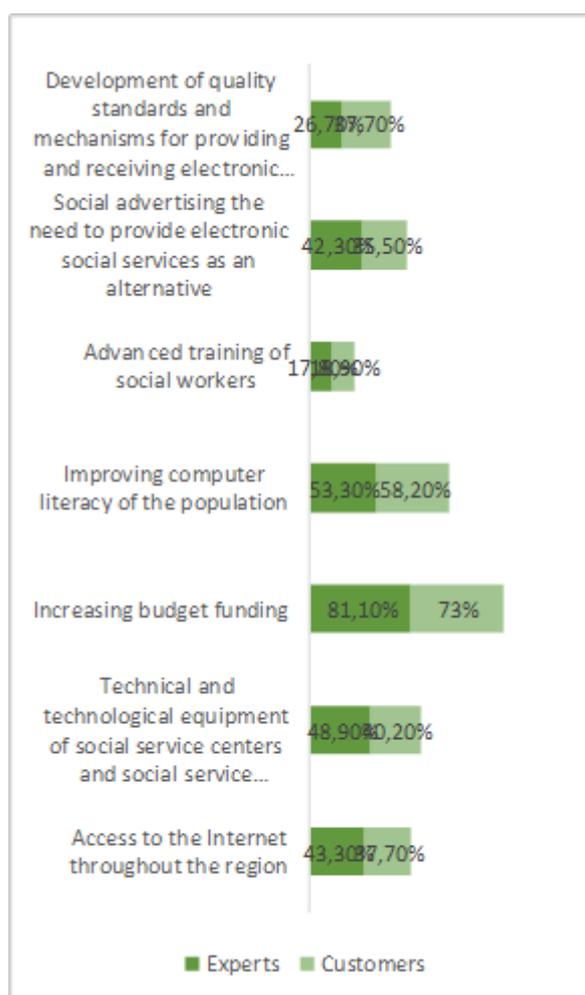


**Fig. 3.** Assessment of the providing social services possibility in electronic form (average values)

Experts, based on their own practical experience in the social services provision, assessed the possibilities of introducing e-services as follows: the highest indicator, according to social workers, is social services (such as filing an application and a request for their receipt), online legal advice, psychological and socio-pedagogical services, and so thinks the majority of social service institutions employees in Zaporizhzhia city than the regional centers of the Zaporizhzhia region. For clients, social services, online psychological consultations, distance learning and socio-economic services (as an opportunity for remote registration of social assistance, payments, benefits, etc.) have a high rate of social services implementation assessment in electronic form.

If we consider consumers of social services by virtue of age categories, we can dwell on the following: the presence of an actual direction for optimizing the process of introducing electronic social services. For the population aged 15 to 30, we are talking about the following factors: technological and technical support

and a computer; the population aged 31 to 50 has a high level of literacy in the field of technology, have access to Internet resources, as regards the methodology for the provision of digital services in the field of the social sphere; for people 50 years and older - sufficient funding and material and technical support and technical social service institutions provision, social workers advanced training. The results of the study show that more accessible (and possibly received in electronic form) for young people are legal services, processing of social assistance and online counseling for the middle age category - distance learning, electronic requests and social assistance processing, for the older age category - electronic requests and processing of housing subsidy. In this context, V. Popovych said that the bilateral interaction between the state and society can be formed through effective modern tools [12, p.320].



**Fig. 4.** Factors for optimizing the process of introducing the electronic social services provision (it was possible to choose several options)

Deserves special attention to determine the assessment of the social services implementation defined at the legislative level in electronic form. The respondents were asked to evaluate the possibility of providing the following social services in electronic form.

The fig. 4 presents the factors for optimizing the implementation of social services in a remote

(electronic) form. A comparative analysis of the survey results of experts and clients revealed some statistically significant differences in determining the factors for optimizing the process of introducing the electronic social services provision. So, for experts, such factors are: an increase in budgetary funding, computer population and social workers, information support for the introduction of an electronic social services system, an increase in the level of technical support and technical support and unhindered access to Internet resources, and this is most closely monitored among specialists in the social sphere of Zaporizhzhia city. The main points that were determined by consumers of social services are those that can influence the increase in the level and improvement of the provided electronic social services. We are talking about improving the situation with state support in the field of finance, computerization, the lack of a regulatory framework that would regulate the electronic social services provision at the legislative level and, of course, scientific justification for the implementation of the electronic social services system introduction of a system of electronic social services through the development of quality standards and mechanisms for their provision.

For clients, social services, online psychological consultations, distance learning and socio-economic services (as an opportunity for remote registration of social assistance, payments, benefits, etc.) have a high rate of assessment of the social services implementation in electronic form. For clients of social services living in regional centers and rural areas, a significant high indicator of the social possibility and medical services in electronic form is primarily related to the organization of consultations on the prevention and development of possible organic personality disorders, support of their health, the implementation of preventive, treatment and recreational activities, registration of electronic requests for their receipt at the place of residence.

## Conclusions

Based on the results of theoretical and empirical analysis, we made the following conclusions.

1. The definition of electronic social service as a social service is given, fully or partially provided with the help of online services of state authorities, social protection institutions and social services for the population, and the most affordable services for today are distance learning services, the provision of online consultations, registration of housing subsidies, registration of social assistance, employment services.

2. According to the results obtained, social services, online psychological consultations, distance learning and socio-economic services (as the possibility of remote registration of social assistance, payments, benefits, etc.) have the greatest potential for implementation into the social service system.

3. Among the factors for optimizing the implementation of electronic social services, the most significant ones were found - an increase in budget

funding, computer population and social workers, information support for the introduction of electronic social services system, an increase in the level of technical support and access to the Internet.

4. The level of accessibility in terms of methods' awareness and possibilities of obtaining (providing) services in the social sphere by electronic resources was found among experts and clients above average, and among social workers there is a sufficiently high level of support for the information implementation and communication technologies for remote social services. A separate part of the respondents who took part in the study (these are clients of the social sphere and specialists in the field of social work) provided information on their experience in the social services provision in electronic form, which is largely associated with the general trend of e-government development in Ukraine through government Internet portals. In the modern world, including in Ukraine, the electronic form of the social services provision most uses those tools that are available through the Internet - resources for a wide range of users. The same opportunities for clients are provided by the official websites of social service institutions, among which a social survey was conducted. Of all the services in the electronic context, the readiness to receive electronic social services received a positive assessment among experts and the population - 32% of the interviewed experts and clients.

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