Information priorities of strategic management for sustainable development of the city

*Vladimir Sulimin, Vladislav Shvedov, and Maya Lvova**

Ural State University of Economics, Yekaterinburg, Russia

Abstract. The problems and challenges of the modern world, expressed in the ability of people whose behavior and actions violate the norms and rules of behavior accepted in society, to influence negatively the social situation, require cardinal changes in the public administration forms. The article provides an overview of methods and forms in terms of urban community management based on the introduction of digital technologies. Possible problems associated with the digitalization of the urban environment are considered, as well as ways of their solution are outlined. The key vectors of the electronic technologies introduction in the management processes of the city functioning are systematized. For solving economic and social problems, the authors suggest the priority implementation trends designed for the municipal government, including a discrete system based on the coding and broadcasting information data methods.

1 Introduction

One of the possibilities to prevent significant failures in the people's life is the digitalization of public life management, the introduction of digital technologies, solutions of platform types in the areas of subordinate, legally authoritative activities and the provision of services at the individuals request by the executive authorities. According to the experts, these measures will increase the interaction efficiency among the government, society and the individual citizens. People will have the opportunity to make quick contacts with government agencies in terms of relationships, for example, with financial and credit organizations on the Internet platforms. The authorities will minimize the administrative costs, operating in the mobile and efficient way [3, p. 2224].

The process of introducing digital technologies into public administration faces two key goals: 1) increasing the availability, quality and efficiency of services provided by the state; 2) management costs for the state apparatus and its exercised functions.

To achieve the goals, it is necessary to solve a number of fundamental tasks: a) to intensify activities for developing a system of knowledge, skills, mental and creative abilities, intuition, and time perspective thinking of the citizens; b) to make changes in the structure of the country's economy by means of scientific, technical and intellectual support; c) to update the scientific and technical sphere of a society on the basis of technological discoveries and achievements.

* Corresponding author: lvova_usue@mail.ru

Predictive analysis of measures for achieving the above goals and solve problems enables to plan the achievement of the following indicators [5, p. 150]:

- fast provision of public services via the World Wide Web through special digital services, depending on the life situations of the law subjects;
- maximum automation of the documents flow (including electronic ones) between the organizations;
- the existence of a qualified electronic signature (QES) and electronic passports for the country's population.

2 Digitalization of the city management

The digitalization of the city management is the implementation of municipal authorities functions through special platforms. The transition to this management form is determined by the problems related to economic and national security due to the low technical provision of most enterprises in the production sector, an undeveloped scientific base, the absence of a unified system for the implementation of numerous acts, programs and projects, and ineffective spending of budget funds. In order to provide high results of digital technologies introduction in the processes of managing the urban environment, it is necessary, first of all, to think through the procedure for adapting power structures to operate with gigantic volumes of data, and to minimize bureaucracy. In addition, it is worth developing a strategy for programs and projects consolidation into a single system in order to implement them without unnecessary red tape and with the optimal cost of public funds, as well as to digitize the entire document flow.

Administrative reforms for creating an information and telecommunications infrastructure in the municipality must commence with identifying the problems. Thus, almost everywhere there is a lack of information knowledge among municipal employees and the lack of a possibility in terms of free access to the Internet among a large part of the population. People with disabilities experience great problems in interacting with the authorities.

Due to low funding, the city authorities cannot often comply with a level of information protection related to modern requirements, can hardly create an automated base of document flow and recordkeeping, alongside with ensuring a high-quality operation of office equipment. These problems should be solved on the basis of the following measures:

1. Ensuring crypto-protection of interdepartmental electronic interaction.
2. Drawing up special programs, conducting special workshops to improve the information competence of city employees of the executive structures.
3. Regular office equipment updating, local networks of communication and server equipment.
4. Commissioning for the rapid development of the necessary modules and functionality of modern city management portals, including the disabled persons [4].
5. Creation of the electronic services feedback for the city authorities and residents, in order to:
 - obtain reliable information about the citizens' problems;
 - inform about the performance of work in terms of the roads and streets maintenance;
 - facilitate the search for information on road facilities;
 - warn about changing the weather conditions;
 - realize the individual's right to access data referring to the city government structures activity;

- provide an access through: the Internet technologies to the city administration portal, websites of the administrations, social structures, public organizations; computer technologies based on automation techniques to the city "hot lines", information services, electronic media; wireless technologies to the Internet access, and the navigation system;
- form a city portal in order to post information, conduct sociological surveys, publish data on the city work performance.

3 Results

The priority introduction of digital technologies is viewed as the most rational in the following urban areas:

- housing and utilities infrastructure;
- social life (medicine, education, culture);
- consumer goods and services market;
- democracy based on the ICT implementation.

As part of the housing and utilities infrastructure digitalization in the residential buildings, the following systems are installed:

- video surveillance, access control, ensuring security;
- -remote monitoring of the engineering equipment operation;
- management of water supply, electricity supply, electric lighting, and heat supply;
- expenditure accounting for water, electricity, and central heating.

Security systems, dispatching, accounting, resource control contribute to ensuring comfortable citizens' accommodation in their homes, significant energy savings due to the reasonable consumption [7, p. 250].

The information technologies introduction into the social sphere of the urban environment presents immense and broad opportunities for managing educational institutions, medicine, sports culture as well as assisting the citizens in need.

The unification of educational institutions via the Internet portals makes it possible to provide continuous education for students in a distance format. In the conditions of a "digital" school, it is possible: to create electronic passes for students; to provide virtual money turnover, including payment for food; to maintain an electronic journal of students in real time in order the parents to have an access to it; attendance records; automatic regulation of heating, lighting, water supply in the buildings of the children's educational institutions [1, p. 65].

A very convenient form of providing services to the population is the "electronic registration" of polyclinics. Writing out a sick leave with an electronic digital signature of a doctor allows the patient to save time queuing at the reception and re-waiting at the doctor's office to confirm the document with a seal. Loss of documents is excluded. There is no need to store paper disability sheets.

Electronic coupons for travel to the place of a sanatorium treatment, created by the SIF (Social Insurance Fund) and the Russian Railways plc, alongside with the digital vouchers will significantly facilitate the life of unhealthy people.

The creation of multifunctional digital intelligence centers on the basis of the city and regional libraries contributes greatly to an increase in the educational and cultural level of citizens living in the municipality territory.

Urban residents have an access to such electronic services as: an access to e-mail, electronic libraries, databases; financial services, including banking operations; hiring, professional personnel training of the institutions and organizations.

In the process of developing the social services digitalization, city authorities should monitor the reliability and correctness of the information, introduced in the electronic format; they should also attract and support such developed technology companies that react rapidly to the customer requests and provide services on the basis of mutually beneficial partnership [2, p. 78].

The desire of retail chains to correspond to the buyers' requests makes them also implement actively the digital technologies possibilities in order to demonstrate the product, describe it in details, and deliver it to the buyer at no additional charge. The city authorities need to provide all-round assistance to sellers in adapting to the e-commerce market, create a convenient, adaptable and accessible technological base as well as to assist in choosing ways of communicating with the consumers. For example, a computer vision technology can segment in details such citizens who purchase goods or services for personal needs, it can also evaluate the effectiveness degree of digital marketing advertising, and balance mass advertising coverage as well as predict the products demand [6].

Citizens striving for a healthy lifestyle and conscious consumption can use special applications to check the quality, safety, and naturalness of products in the supermarkets.

Creating an electronic basis for the urban construction and reconstruction system, the municipal government bodies should place virtual models of urban architectural plans and facilities under construction on their official website.

A constantly updated website of the city administration should involve residents in the process of the authority decision-making. The following measures contribute to intensifying the process itself: free training of the population in terms of computer literacy; internet conferences on key urban issues; video meetings of the administrative staff with the citizens; interactive surveys of people living in the city on a permanent basis; an access to Wi-Fi in libraries, Internet cafes, computer clubs; digital information boards in crowd-related places; electronic maps of individual districts and the entire urban area.

4 Conclusion

It is worth mentioning that the strategic management for sustainable development of a city should not contain only a digital aspect. It is necessary to take care of the environment preservation regularly; to strive for the maximum satisfaction of the material and spiritual needs of the townspeople; to improve systematically the production processes efficiency; to develop the institutional environment of the ideas in terms of the public life norms from the bureaucracy point of view, written rules, as well as means and methods of activity not enshrined by formal laws [7, p.251].

Digital technologies are capable of changing radically the nature of the urban community functioning, they contribute to creating social innovations and new types of partnerships, promoting the maximum involvement of the population in solving society problems. In this case it is worth applying this tool for changing the social environment on the basis of smart plans and properly formulated management strategy.

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