



OPPORTUNITIES FOR DEVELOPMENT OF ELECTRONIC SERVICES IN BULGARIA

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ABSTRACT

Purpose. Electronic services are one of the essential components of e-government building and the achievement of digital administration. The main objective of the present study is based on the available empirical data to analyze the main problems, challenges and opportunities for improving and expanding the electronic services in the Republic of Bulgaria. This is an important prerequisite for creating a digital administration, which is a strategic goal. **Methods.** To achieve this goal, different scientific and statistical methods are applied to available empirical data. **Results.** The results of the development of this problem are in the direction of clarifying additional aspects of electronic services and the possibilities for their improvement. **Conclusions.** The analytical part of the study is aimed at formulating key findings and defining leading trends in the field of digital administration.

Key words: e-services, e-government, digital administration

INTRODUCTION

In modern living conditions and the continuous development of information and communication technologies one of the priorities of the administrative bodies is the provision of electronic services. This is also envisaged in the first strategic goal of the Strategy for the Development of e-Governance in the Republic of Bulgaria 2014-2020 – providing quality, efficient and easily accessible electronic services to citizens and businesses [1]. For this purpose, it is envisaged to develop the information infrastructure necessary for the provision of electronic services. The focus in this area is the creation of electronic registers and access to them. In some administrations, software environments for project management under the Operational Programs of the European Union [2] need to be more actively applied. In addition, the development of large data requires administrations to implement the appropriate web publishing systems [3], as well as to rapidly electrify their administrative services. The provision of electronic services by the administrative authorities is related to

the development of complex administrative services. At the core of the complex administrative service is the principle of single collection and multiple use of the data. This means that once collected data from citizens and business is not required again and is provided by business means. This leads to the improvement of the administrative structures, their organizational efficiency and the optimization of the work processes for the provision of the service. In addition, the complex administrative service promotes access to services through various channels, some of which are electronic channels. The goal of digitization and development of electronic services is to reduce administrative burdens and bureaucracy in the provision of services, administrative service oriented towards the needs of service users, increasing the efficiency of services and reducing the financial costs and deadlines for their delivery. Enhancing the application of e-services is linked to the full electrification of the service. The possibilities of introducing electronic payments and transactions in the provision of services lead to an increase in their usability and development of e-government in the country. In order to establish the state of electronic services provided by administrations, they are classified according

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to the level of development of the services provided electronically. These levels are regulated by the Ordinance on the Administrative Register as [4]:

- Level 1: Information – providing information about administrative services electronically, including ways and places for declaring the services, terms and fees;
- Level 2: Unilateral communication – information under the Level 1 definition and public online access to template forms;
- Level 3: Bilateral communication – requesting and receiving services wholly by electronic means, including electronic submission of data and documents, electronic form processing and electronic personal identification of users;
- Level 4: Perform transactions or transactions on Level 3 services, including online payment or delivery.

The subject of the survey is the electronic services provided in Bulgaria, and the subject of the opportunities for development of electronic services. The purpose of the present study is to define opportunities for the development of electronic services by analyzing the state of the municipal electronic services. In order to achieve the goal, the following tasks are set:

- Analysis of the offered online services by the municipalities, which are regional centers for the period 2015 - 2018;

- Analysis of the level 3 and level 4 electronic administrative services offered by the municipalities of district centers;
- As a result of the data analysis, concrete opportunities for improvement of the electronic services provided in Bulgaria should be offered.

The defined thesis of the study is that there is a need to improve electronic services and opportunities for their development.

STATE OF MUNICIPAL ELECTRONIC SERVICES IN BULGARIA

The development of e-government at the local level is being explored by the Economic Policy Institute. For this purpose, a methodology is used to form digital governance indexes for the 27 municipalities of the district centers for the period 2015 - 2018. The methodology includes five categories, one of them being services offered. "This category considers two main aspects: first, what opportunities are available to Internet users to consult through the municipal site and secondly, to what extent there is access to payment of different types of administrative fees and local taxes via the online platform of the particular municipality" [5]. In order to determine the state of electronic services in Bulgaria, data will be used only on the "services offered" component of this study.

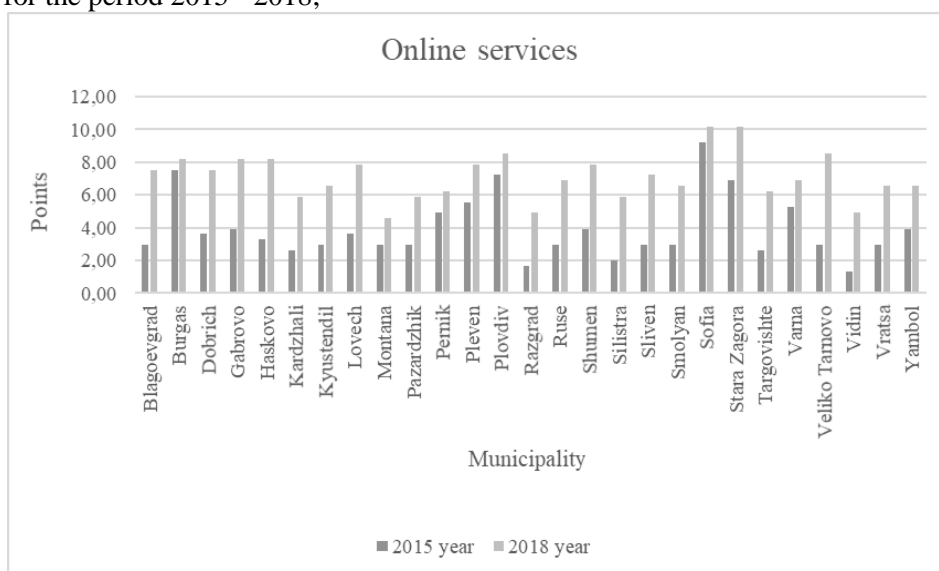


Figure 1. Offered online services for 2015 and 2018

Figure 1 shows the measurement of online services for 2015 and 2018 of the 27 municipalities that are district centers. For the year 2015, the highest result is the municipal administration Sofia - 9,18, this tendency being

maintained in 2018, when the highest results are the municipalities of Sofia and Stara Zagora - 10,16. The lowest number of points for 2015 is Vidin municipality - 1,31, and for 2018 the lowest points in terms of the offered

online services is Montana municipality - 4.59. For the period 2015-2018, in all municipalities the supply of online services has increased, and the trend is that in the municipalities with lower performance in 2015 the increase is higher than in the municipalities with higher results for this year. The biggest difference is in the Municipality of Veliko Tarnovo - 5.57,

because from 2.95 points in 2015. it reaches 8.52 in 2018. The smallest is the change in the municipalities of Sofia and Burgas - below, but they together with Plovdiv Municipality have the highest results in the category of services offered for 2015. These dependencies are presented in **Figure 2**.

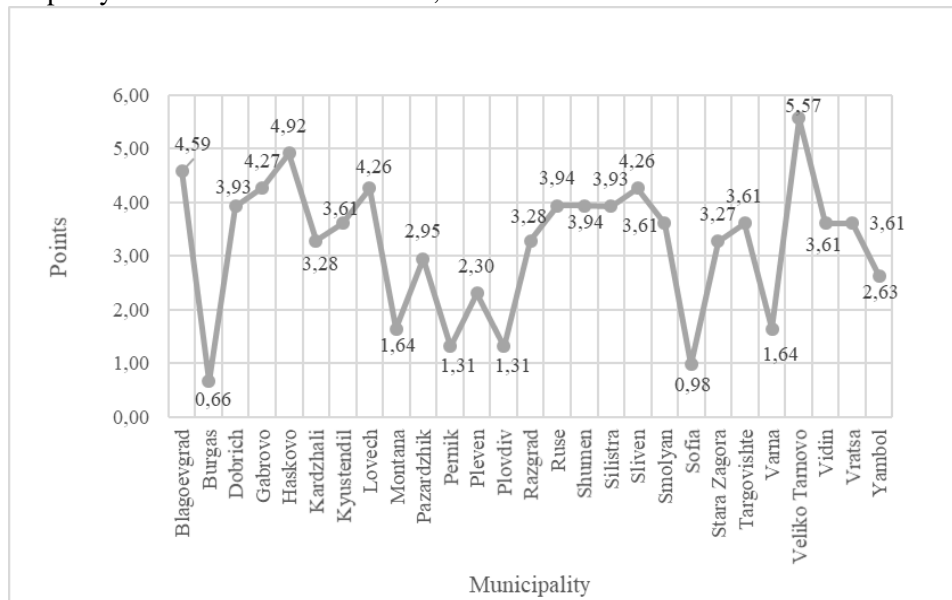


Figure 2. Change in online services offered 2015-2018

During the monitored period 2015 - 2018, the services offered by the municipalities increased evenly. This is illustrated in **Figure 3**, which presents the dynamics of municipal development over the four years. The difference between the municipalities with the lowest and highest score for 2015 is 7.87 and for 2018 5.57, which shows that the digitization of the services offered is

improving. All municipalities are faced with the challenge of digitizing not only the electronic services they provide to citizens and businesses but also all the activities of the municipal administration, including electronic document exchange, record keeping, interregional exchange, work process electronization, etc.

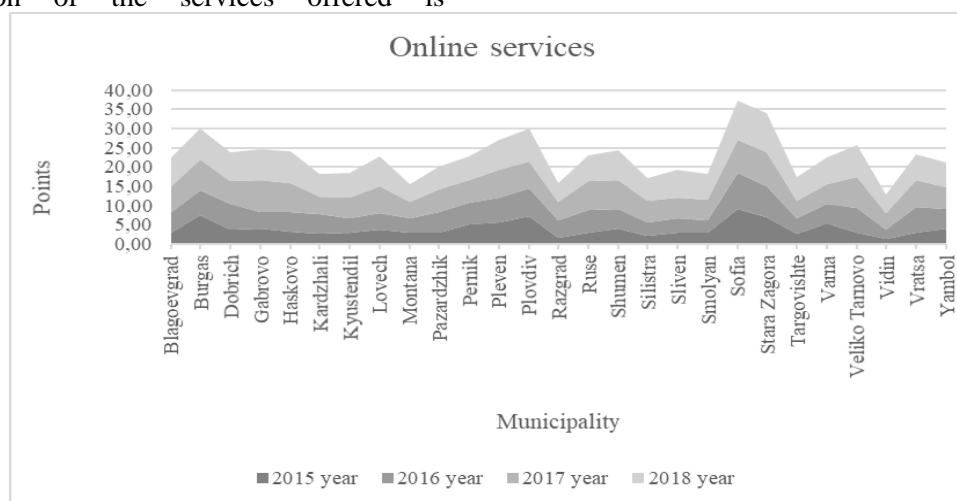


Figure 3. Offered online services for the period 2015 - 2018

The report analyzes data from the Administrative Register, which is created and maintained by the Council of Ministers under

the Administration Act [6]. The data used is for municipalities that are district centers and the level 3 and level 4 electronic services provided by them as of 03.06.2019 [7].

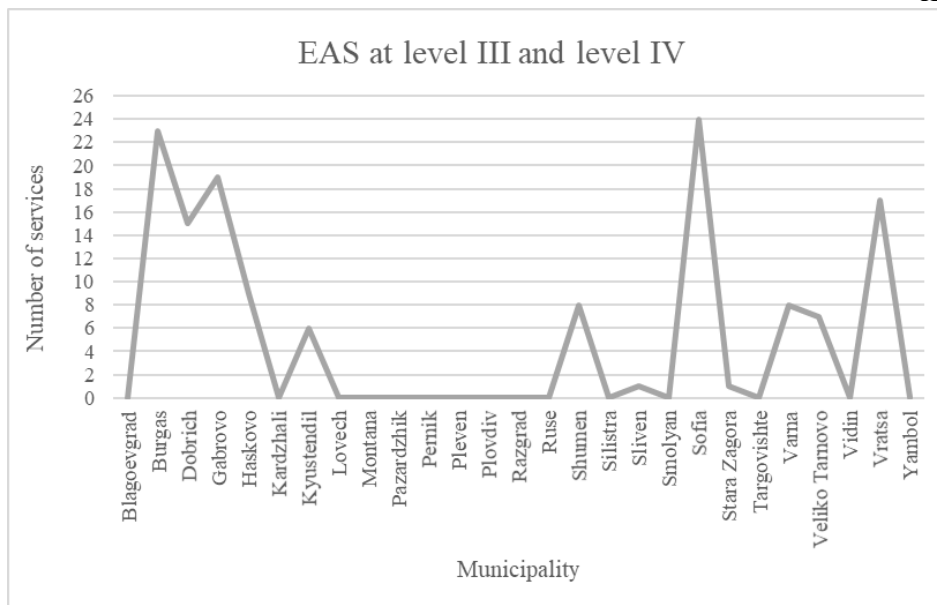


Figure 4. Electronic administrative services of level 3 and level 4

Figure 4 presents the level 3 and level 4 electronic administrative services provided by the municipalities - district centers as of 03.06.2019. In 15 of the municipal administrations the offered electronic administrative services are zero. This leads to the conclusion that no electronic administrative services have reached levels 3 and 4 or no data in the administrative register for them. In the remaining 12 municipalities there are registered services of level 3 and level 4, the difference in their number ranging from 1 to 24. The most electronic administrative services at these levels are provided by the municipality of Sofia - 24, followed by the municipality of Burgas - 23, the municipality of Gabrovo - 19, etc., and at least in the municipalities of Sliven and Stara Zagora: 1. In the municipalities providing online services and opportunities for payment of different types of administrative fees and local taxes through the online platform of the specific municipality on the first positions for 2018. are the municipalities of Sofia, Stara Zagora, Plovdiv, Veliko Tarnovo, Haskovo, Gabrovo, Burgas and municipalities providing electronic administrative services of level 3 and level 4 according to data from the Administrative Register as of 03.06.2019. are the municipalities of Sofia, Burgas, Gabrovo. This shows that the results of the analysis of the data regarding the online services offered by the municipalities, the possibilities for paying different types of administrative fees through the online platform of the specific municipality and the level 3 and level 4 electronic administrative services are largely in line. According to data of the State Agency for

Electronic Management "as of July 2018 1 577 are services of level 3 and 221 are services of level 4. However, for more than half (58%) of the services listed in the Services Register, the level of administration is not stated. Often, information about the provision of electronic services and their online application is hard to detect, there are problems with registering users or loading pages with electronic administrative services. These difficulties can be a reason for denying the use of electronic services" [8].

DIGITALIZATION AND POSSIBILITIES FOR DEVELOPMENT OF ELECTRONIC SERVICES

From this analysis can be defined possibilities for development of the digitalization and provision of municipal electronic services for the citizens and the business, namely:

- Improving the use of information and communication technologies. This can be achieved by developing and implementing conceptual models of systems in all key areas of work. Such approaches are described by Kirilov [9], which can also be adapted to the local administration. These include project management, cash flow management, human resources management, and so on. Thus, it is easier to integrate systems at national and local level. This ensures the principle of single data collection and reuse. This is a prerequisite for the prevention of technical and technological problems in the use of electronic services;
- Increasing the level of development of the administration and the human resources therein. This can be established by applying

common or specially developed assessment methodologies [10];

- Implementation of good practices in the provision of electronic services in individual municipal administrations. This section also includes the possibilities for digitization of the administration using Internet monitoring systems. One of the recent studies in this direction belongs to Milev [11], which also gives the opportunity to apply these approaches in the public sphere. This way, it can easily be done with large data in the administration;
- Providing easily accessible e-services to citizens and businesses. The services can easily be found on the website of the respective administration from the position of an average citizen;
- Informing the public about the e-services offered and the security of their use. Cyber security is constantly evolving. Citizens must be informed about responsible institutions and network and information security measures;
- Timely and accurate introduction of services and changes in circumstances in the Administrative Register, which will lead to the development of digitization and improvement of the provision of electronic services;
- Improving the quality of e-services by analyzing consumer opinion. The introduction of appropriate mechanisms for measuring public satisfaction and feedback from citizens leads to timely measures to improve e-services;
- Increase the efficiency of e-services by introducing electronic payments and reaching e-services to level 4.

CONCLUSIONS

As a result of the analysis it was established that there is a need for improvement of electronic services and administrative services in Bulgaria. In order to modernize the processes related to the digitization of the administration, specific opportunities for the development of electronic services are defined in the research, which confirms the thesis.

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