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ANALYSIS OF ELECTRONIC ADMINISTRATIVE SERVICES PROVIDED IN THE ADMINISTRATIVETERRITORIAL UNITS OF BULGARIA

ABSTRACT

Electronic administrative services are an effective tool for the modernisation of local self-government. The provided administrative services contribute to facilitating communication between citizens, businesses, and administration, as well as within the administration itself. This article aims to reveal the average provision of electronic administrative services at the local level by examining the average data for each district and to reveal the differences in the provision of electronic administrative services. For this purpose, statistical data on the population who are respondents to the services are used, and the electronic administrative services provided in Bulgaria largely meet the reliability standards. The arguments by which citizens justify the fact that they do not use electronic administrative services are related to public distrust of these services and state institutions in general, preference for personal contact with employees in the administration, concerns about insufficient information

security, lack of computer skills, and personal electronic devices that allow the services to be used.

KEYWORDS: municipalities, electronic administrative services, demographic situation

JEL: H1, H7, J1, R5

INTRODUCTION

Electronic administrative services allow citizens and businesses to access administrative services at any time and from any place, greatly facilitating the process of interaction, which is of particular importance for people who live in remote areas or have limited mobility. Our country is characterised by large and large differences in the number of population by municipalities, the population density by municipalities varies from 1.68 people per sq. m. km for the municipality of Treklyano to 3,135.75 people per sq. m. km in the municipality of Plovdiv, according to the data from the last census in 2021 (NSI, 2023). Demographic situation in the country in 2023 The population is characterised by an ongoing process of population decline and ageing, with regional variations in terms of age. The demographic characteristics of the population help to identify the population's needs for the appropriate services for them.

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According to the latest data from 2023, the oldest population ranges from 19.6% for the district of Sofia-capital to 31.5% for the district of Vidin. The concentration of the working population is in the big cities. That is why electronic administrative services are so important for citizens to have equal access to the necessary services, to contribute to the social inclusion of vulnerable groups, such as the elderly or those living in remote areas.

According to the latest data published by the NSI, the relative share of households with Internet access over the past five years has increased significantly from 72.1% in 2018 to 88.5% in 2023, with nearly 80% of the country's population regularly using the Internet (every day or at least once a week) (NSI, 2023). Only 29.7% of the country's population in 2023 using the Internet to interact with administrative authorities and public institutions, with only 4.4% for submitting a request for the issuance of official documents and certificates. In 2023, 35.5% of people have basic or above basic digital skills, and the data vary both in territorial aspect and in education and especially in age. Therefore, it is necessary to consider the territorial variations of the provided electronic administrative services, as well as the territorial distribution of the population with its characteristics, because it is determined, both from its natural movement and external migration, as well as from internal migration and changes in the administrative-territorial structure of the country.

1. Administrative-territorial division

The Republic of Bulgaria has a division that can be considered administrative, territorial, and statistical. In statistics, the territory of our country is considered at 3 levels, which are also in accordance with the requirements of the Common Classification of Territorial Units for Statistical Purposes (NUTS), applied in the European Union. The first two levels: NUTS 1 - statistical zones and NUTS 2 - statistical regions, do not represent administrative-territorial units, while the third level NUTS 3 - districts, are administrative-territorial units and cover the territory of the 28 districts of the same name. Administratively, our country is divided into districts and municipalities, with each district, municipality and town hall having its own territory, borders, population, name and administrative centre, and the region - territory, borders, population and name.

According to NSI data, as of December 31, 2023, there are 5,256 settlements on the territory of the Republic of Bulgaria (including 257 towns and 4,999 villages), 166 settlements (including 8 of national importance and 158 of local importance), which are united in 265 municipalities, and they, in turn, in 28 districts.

The districts include municipalities, as only Sofia District includes only one municipality - Sofia, and Sofia Region as many as 22 municipalities, and there are some of the smallest municipalities in terms of territory, such as Chelopech, Chavdar, and Dolna Banya. Viewed from a demographic point of view, they can be grouped as you can see in Figure 1:

3000000 140 2631816 120 2500000 121 100 2000000 80 1500000 81 1332922 1339821 60 1000000 849475 40 43 500000 20 291447 8 12 n () over 100000 up to 5999 6000 - 19999 20000 - 49999 50000 - 99999 ■ The number of municipalities Number of population

Figure 1. Distribution of the number of municipalities according to the population size and the total population living in them, 2023

Source: NSI, Administrative-Territorial and Territorial Divisions of the Republic of Bulgaria as of 31.12.2023, 2024

The largest population lives in the eight municipalities with a population of more than 100,000 people, which is 40.8% of the country's population. The largest in terms of population is the Sofia Municipality with 1,286,965 people, followed by the municipalities of Plovdiv with 325,485 people and Varna with 323,386 people.4.5% of the country's population. Among all municipalities with the smallest population is Treklyano, 470 people. For the last year, the population living in cities increased and reached 73.5%. Municipalities such as Sofia Municipality, Plovdiv Municipality, and Varna are divided administratively-territorially into regions: Sofia Municipality - 24 districts, Sofia Municipality - 24 districts. Plovdiv - 6 districts, Plovdiv. Varna - in 5 districts. According to the Law on the Administrative-Territorial Structure of the Republic of Bulgaria, regions are created in the capital and in cities with a population of more than 300,000 people, and such a possibility is provided for cities with a population of more than 100,000 people, and this is possible after a decision of the municipal council and the conditions specified in Art. 12 of the same Act:

- presence of a population of more than 25 000 people in the area;
- possibility for zoning of the territory of the respective cities according to their current general urban development plans and in accordance with permanent natural-geographical or infrastructural dividers;
- > availability of infrastructure of regional importance to meet administrative, social and sanitary-hygienic needs.

According to the Constitution of the Republic of Bulgaria, the municipality is the main administrative-territorial unit in which local self-government is carried out. Constituent administrative-territorial units in municipalities are mayoralties and districts. The body responsible for local self-government in the municipality is the municipal council, which is elected by the population, and the executive body in the municipality is the mayor. The actions of the mayor in which he carries out his activities are guided by the law, the acts of the municipal council and the decisions of the population. Local self-government is expressed in the right and real opportunity of citizens and their elected bodies to independently decide on all issues of local importance, which the law has assigned to them in their competence in the field of:

- municipal property, municipal enterprises, municipal finances, taxes and fees, municipal administration;
- the development and development of the territory of the municipality and the settlements in it;
 - education, healthcare, culture, social services;
 - public works and communal activities;
 - environmental protection and rational use of natural resources;
 - Maintenance and preservation of cultural, historical, and architectural monuments;
 - the development of sports, recreation, and tourism;
 - disaster protection.

Citizens participate in the management of the municipality through their elected bodies, both through a referendum and a general assembly of the population. A local referendum and a general assembly of the population shall be convened and held under conditions and in accordance with the procedure established by law. Civic participation is part of the democratic values of society, and its active participation would contribute to a better understanding of the real needs and challenges of the community.

With the introduction of electronic administrative services, this opportunity increases, and the satisfaction of the population increases, trust in the authorities is strengthened, and governance becomes more effective and faster for citizens. Automation of processes saves time and costs and increases the quality of the services offered to both the population and the business, and the administration itself.

2. E-Government

The improvement of administrative services started with the adoption in 1999 of the Law on Administrative Services for Individuals and Legal Entities, and the start of the process of establishing e-government in Bulgaria with the adoption of the Electronic Document and Electronic Signature Act in 2001 and Decision of the Council of Ministers No. 866 of 28. 11. 2002 and the adopted Strategy for e-Government. The process of transforming traditional paper documents into digital format directly corresponds to the Electronic Communications Act and the Electronic Government Act (EGA) adopted in 2007.

Within the meaning of the e-Government Act, "electronic" is the management when the work of the administrative bodies is carried out through electronic documents, as well as their exchange, i.e. the provision of administrative services occurs electronically, as they are requested and/or provided remotely through the use of electronic means. In general, it aims to modernise and optimise the work of the public sector through the integration of information and communication technologies (ICT), because e-Government serves as the main platform for the digital transformation of public institutions, aimed at improving the quality of administrative services, streamlining internal processes, and providing access to electronic resources. According to authors such as Alan Brown, Jerry Fishenden, and Mark Thompson, digital transformation requires redesign and reengineering at every level – people, process, technology, and management (Brown, Fishenden, & Thompson, 2014). E-Government is related to the provision of electronic administrative services.

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According to a study by Nedelcheva and Boneva (Nedelcheva & Boneva, 2023), terms such as electronic services and digital services are unambiguous; even digital services are gaining more popularity due to the introduction of the expression "digital transformation", which in turn is used both for business services and for those provided by the public sector. The main legal strategic documents use electronic administrative services, as these are those services that are provided to citizens and organisations by administrative bodies, as these are those services that are provided by persons entrusted with the performance of public functions, as well as public services that can be requested and/or provided remotely through the use of electronic means. The bodies providing these services are administrative bodies or these are the persons performing public functions, and the organisations providing public services are obliged to provide all services within their competence and by electronic means, unless the law provides for a special form for the performance of individual actions or the issuance of relevant acts.

The Ministry of eGovernment is the administrative body that coordinates the activities for the implementation of a unified state policy in the field of electronic government and, accordingly, electronic services, as part of this activity. The Single Portal for Access to Electronic Administrative Services (SPAEAS, eGov.bg) is a single point of access to electronic administrative services. According to the regulated relations, the site "eGov.bg" is defined as a single-entry point for electronic access to services, information and systems provided by administrative bodies providing administrative services, persons performing public functions, and organisations providing public services. Electronic administrative services aim to create a more efficient, transparent, and citizen and business-orientated environment that meets modern requirements, and in Figure 2 it is possible to track the number of newly introduced administrative services.

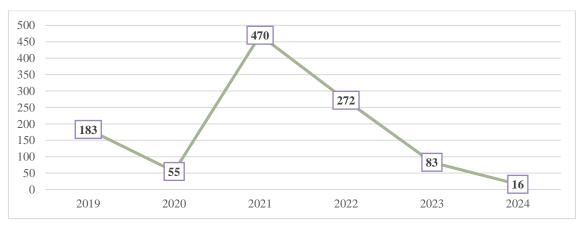


Figure 2. Number of new electronic services developed according to the Unified Model

Source: Unified model for requesting, paying and providing electronic services, https://unifiedmodel.egov.bg/wps/portal/unified-model/unified-model/statistics/statistics/

As can be seen in Figure 2, the largest number of services at the central and local level was created in 2021 and 2022, which had to respond to the new situation caused by the emergence of COVID-19, which required the closure of many institutions that serve the public interest.

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The number of electronic administrative services provided by municipal administrations is 187. There are 3 services provided by each administration.

According to European Union surveys, Bulgaria is in one of the last places in the indicator Digital public services for citizens of **DESI 2023** (European Commission, 2024). The development of e-services is in line with the priorities set out in the Updated Strategy for the Development of E-Government in the Republic of Bulgaria 2019-2025.

According to the Strategy for the Development of e-Government in the Republic of Bulgaria 2019-2025, e-Government is a means both for a comprehensive increase in the efficiency of the processes in the administration and for facilitating the interaction between the administration, citizens and business, and with a coordinated, standardised and expedient implementation of e-Government, valuable resources are freed up, time, people and finances" (Council of Ministers, 2021).

The provision of electronic services makes the process more efficient, transparent and accessible. The following figure shows the number of electronic services requested.

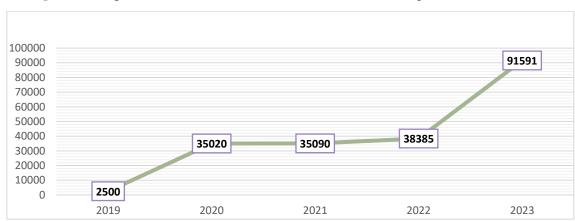


Figure 3. Requested electronic administrative services through the Unified Model

Source: Unified model for requesting, paying and providing electronic services, https://unifiedmodel.egov.bg/wps/portal/unified-model/unified-model/statistics/statistics/

The figure shows a noticeable increase in the consumption of electronic services for the last year, with consumption increasing more than 138% compared to the previous year and compared to 2019. 36 times, i.e., administrative services are increasingly being used in an electronic environment. This, in turn, makes administrative processes more transparent and traceable and restores the trust of citizens and businesses.

The EU and the European Commission (EC) are actively working to modernise public administrations, achieve interoperability, and facilitate interaction between administrations, citizens, and businesses. In addition to the many regulations, strategies, and initiatives, it creates a platform to make it easier for citizens and businesses to exercise their rights and fulfil their obligations within the internal market by providing a single-entry point for access to quality information, online administrative procedures, and assistance and problem-solving services. The European Commission, through Digital Europe, has focused on the need to apply emerging

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trends, including artificial intelligence and blockchain technologies, while ensuring a high level of data protection, digital rights, and ethical standards.

Widespread use of mobile devices and the Internet, however, the development of technology creates another conscious need, and this is new competencies related to the development of new technologies and their application. In order for e-government to be successful, knowledge and skills are needed, which can be summarised as digital competencies. Digital competence is a combination of knowledge, skills, and attitudes regarding the use of technology to perform tasks, solve problems, communicate, manage information, collaborate, and create and share content effectively, relevantly, securely, critically, creatively, independently, and ethically (Ignatova, 2024). Digital skills and digital competence correspond directly. The European Commission considers that digital competence is part of the eight key core competencies for lifelong learning. It is creating EPALE - Electronic Platform for Adult Learning in Europe, so that digital connectivity between Learning and Learning can work towards social inclusion.

Digital skills refer to the ability to use electronic services effectively, and in Bulgaria they are not at a high level. The highest relative share is among young people between the ages of 16 and 24 (53.2%), and the lowest in the age group 65 - 74 years - 7.3%. More than half of those living in the South-West region (51.5%) have basic or above basic digital skills. Skills, while in the South-Central region their relative share is 22.5% (NSI, 2023). The rationalisation of the processes, their continuous development, and improvement depend not only on the population, but also on the administrative readiness of the employees in the administrations. The Bulgarian administration employees are the conduits of change. According to authors such as Nikolov, Stefanov, and Georgoeva, they would support any change that has been proven to improve the quality of administrative services or the effectiveness of state regulations and policies, simply because the employees themselves want to work better and strive to achieve better results (Dr. Nikolay Nikolov, Sava Stefanov, Gergana Georgieva, 2023, p. 39).

According to NSI data for March 2024, nearly 1/3 of the persons employed under an employment contract in the administration of the executive power are in municipal administrations (NSI, 2024). What distinguishes municipalities where local self-government is carried out from other structures of executive power is that these employees manage the processes. According to assessment studies, the administrative capacity of municipal administrations for 2023 is 2.9086 compared to 2.8441 for 2022, which means that these administrative structures are gradually regaining their top positions in the ranking (Borisov & Gospodinov, 2024), which indicates excellent administrative capacity. These results show that people working at the local level provide quality services, provide access to information, adequate and timely responses to external challenges, inform socioeconomic partners and users of public services about the strategic documents (strategies, plans, and programmes) that determine municipal policy, as well as regulation of internal work processes and employee responsibilities. In the survey, municipalities do not show districts with unsatisfactory administrative capacity, and the lowest ratings indicating satisfactory capacity are related to the lack of self-assessment systems, ignorance of the opportunities and benefits of artificial intelligence for the administration, lack of planning for staff development, and the failure to apply rules and methodologies for monitoring and evaluation of public policies, although such exist, including those developed under European projects.

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According to the Single Portal for Access to Electronic Administrative Services, the number of developed services is 187, which are provided by Municipal Administrations, out of a total of 2118 services in the portal. There are 3 services that are provided by each administration, which are: issuance of a certificate of social security income (UP 2); issuance of a certificate of length of service (UP 3); Providing access to public information.

Based on an author's study conducted in May-June 2024 and analysing the data presented on the Single Portal for Access to Electronic Administrative Services, how many services each of the municipal administrations provides. Administrative e-Services are divided into categories as follows:

- o Administrative services "Green System"
- o Administrative Services "Construction Control"
- o Administrative Services "Cadaster"
- o Administrative Services "Local Taxes and Fees"
- o Administrative services "Advertising"
- o Administrative Services "Agriculture and Ecology"
- o Administrative Services "Trade, Tourism, Transport"
- o Administrative services for civil registration and draughting of deeds
- o Administrative and technical services "Municipal property"
- o Administrative and technical services "Spatial Planning"
- o Administrative Services "Social Activities"
- Other administrative services
- About Notaries
- o Elections 2023
- o Schools, kindergartens

The survey revealed an uneven provision of the number of services, as the municipality that provides the most services is Bregovo and is located in the district of Vidin, and the population is 3617 people and falls among the poorly populated municipalities, as 10 settlements fall within the municipality. The municipality that applies the least services is Harmanli, it offers only 50 electronic administrative services and again falls into the category of municipalities with a population of up to 49999 people.

The following figure shows the average values of the services provided by each municipality, aggregated at the administrative area level (NUTS 3).

134 136 136 128 131 143 129 130 22 | 22 | 22 | 136 136 1400000 160 Average annual population 140 Administrative e-services 1200000 120 1000000 100 800000 80 600000 60 400000 40 200000 20 Razgrad Burgas Sliven **Fargovishte** Veliko Tarnovo Gabrovo Varna Stara Zagora Blagoevgrad Pernik Dobrich Shumen Yambol Sofia (stolitsa) Plovdiv **Kyustendil** Electronic administrative services Average annual population

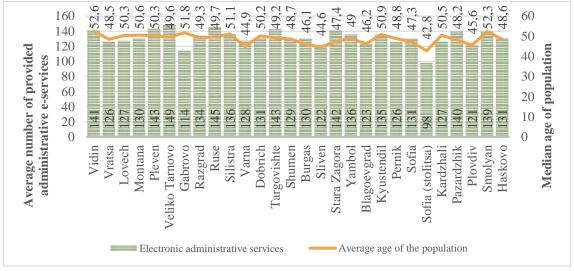
Figure 4. Distribution of the average number of electronic administrative services and the average annual population (NUST3, Bulgaria, 2023)

Source: Author's calculation based on data from the Single Portal for Access to Electronic Administrative Services and NSI, 2024

The data in Figure 4 clearly show that the district with the largest population is Sofia City, where we have only one municipality in Sofia. However, Sofia Municipality offers the least number of services, 98. The district that offers the best average service provision is Veliko Tarnovo, where the average number of services of all municipalities in the district is 149. Veliko Tarnovo is the district with the most depopulated settlements - 67. In the district, the settlements with the smallest population support a larger range of electronic services - Suhindol with a population of 1969 people offers 169 services, Strazhitsa with 9796 people - 174, while the municipality of Svishtov, which has a population of 26236 people, has only 122 electronic administrative services, and Gorna Oryahovitsa with a population of 36877 people has 116 services.

It is evident from the figure that the districts with the highest average annual population offer at least an average number of electronic services per municipality. In addition to the Sofia city district, the data also show low average values for the Plovdiv and Varna districts, where the average number of services provided by the municipalities is 121 for the Plovdiv region and 128 services for the Varna district. We have one value for the services offered in the Gabrovo region. It consists of only four municipalities and, like Veliko Tarnovo, it is the district with many depopulated settlements 67 in number. Sliven districts also consist of only four municipalities and offer an average of 122 electronic administrative services. The district is characterised by a high birth rate and negative natural growth is mainly due to negative demographic trends in the villages and the highest relative share of the self-identified Roma ethnic group of the population, 15.3%. Unfortunately, according to the NSI data from the 2021 census, the Roma ethnic group has the highest share of uneducated persons, 19.95 of all Roma and 11.8% of the self-identified Roma ethnic group aged 9 and older are illiterate (NSI, 2022). Blagoevgrad also provided a low average number of electronic administrative services 123, although it does not have the same ethnocultural characteristics. Municipalities such as Bansko,

Razlog, Simitli, Kresna, and Blagoevgrad provide well above the average value of services, but due to municipalities such as Petrich, Strumyani, Satovcha, and Sandanski, the average result falls, as they provide less than 100 electronic administrative services.



Source: Authors' calculation based on data from the Single Portal for Access to Electronic Administrative Services and Eurostat (demo_r_pjanind3), 2024

Looking at the data for 2023 on the average age and average performance of e-services, it is not open for visibility, since not in every of the districts with a high average age there are also high values of the provided administrative e-services. The district with the highest average age is Vidin, and the average coverage of administrative e-services is 141. In the Vidin region, there are no municipalities offering less than 115 services, and here is the municipality with the most such, Bryagovo, with 180. The next district with a high average age is Smolyan, but it also has a very good average provision of electronic services of 139. There are two municipalities in the district that provide less than 100 administrative e-services, these are Borino and Nedelino, and the municipalities of Banite, Devin, Dospat, Madan, Smolyan, and Chepelare provide above the average for the district. Gabrovo District ranks third in terms of average age, but last in average terms in terms of services provided.

An interesting fact is that districts with a low average age also provide the smallest average number of administrative e-services. These are the Sofia city districts, Plovdiv, Sliven, and Varna, and for the last three districts the average number of services varies between 121-128. Despite the data that young people are higher in digital literacy, no more services are provided for their discussion. Obviously, we have to conclude that it is believed that, based on the lower average age of the population of these districts, it is believed that they are more mobile and will consume the services on the ground.

As a conclusion of the study, we can conclude that on the territory of the districts with the largest population and the lowest average age, the average number of services offered by municipalities is low. Most services are provided by general ones on the territory of districts with a high average age, where only the district of Gabrovo is an exception, because it has a high average age and the lowest average supply of electronic administrative services of all

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administrative districts. There is no direct correlation between the size of the population and the number of services provided in the general survey. The study does not pretend to be exhaustive and will be the result of further scientific developments.

That is why I would agree with Bogdanova that digital transformation takes place as an evolutionary process, in which at the beginning there is a one-way electronic participation (from the administration to the citizens) (Bogdanova, 2023, p. 82). Transparency and accountability are principles of utmost importance in the overall activity of public administration, and they would be best maintained through electronic government and active interaction between citizens, businesses, and administration. And, as Craciun and other authors say, the effectiveness of e-government is directly dependent on:

- 1) the availability of qualified human capital engaged in digital services;
- 2) the digital skills of users of electronic services;
- 3) the integration of digital technologies;
- 4) the use of open data in public administration (Crăciun, Țăran, Noja, Pirtea, & Răcătăian, 2023).

To create a more efficient and sustainable community that wants to generate growth and development, the integration of innovations in municipal management is a necessity, not an option.

CONCLUSION

Bulgaria is lagging behind the average European levels of the use of digital skills and e-public services, but over the years we have made progress that will undoubtedly improve e-government in Bulgaria. Sustainable transformation in all areas of public life is due to the policies, strategies, standards, and methodology adopted to manage programmes and projects, also supported by the EU. This process will undoubtedly lead to an increase in citizens' confidence in the use and integration of electronic administrative services, which can significantly increase the quality of local self-government.

The uneven provision of services leading to different average results is typical not only for Bulgaria, but also for all countries, even the most innovative ones. Municipalities are the most direct contact with citizens and companies, and their perception of the processes and progress of digital transformation as a communication channel depends on them. The pandemic has taught us valuable lessons and has provided a boost to the development of electronic government. Accelerating the provision of electronic administrative services and the implementation of established European instruments to support administrative capacity will support the modernisation of administrations in the executive branch and will bring added value.

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 - $\% \, D1\% \, 82\% \, D0\% \, B5\% \, D1\% \, 80\% \, D0\% \, B8\% \, D1\% \, 82\% \, D0\% \, BE\% \, D1\% \, 80\% \, D0\% \, B8\% \, D0\% \,$
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