

DIGITAL TRANSFORMATION OF PUBLIC SECTOR

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Abstract: In recent years, society has had to adapt to the different socio-economic environment caused by the Covid-19 crisis. This situation has highlighted the need for comprehensive measures to overcome obstacles at all levels created by social distance. The transition to the most remote and electronic way of functioning of different systems has emerged as a way to ensure the continuity of many processes. The purpose of the report is to identify international good practices regarding the digital transition of administrative services and to identify those aspects of them that could be adapted to the Bulgarian public sector. The used methodology is content analysis of documents and scientific publications, induction, deduction, GAP analysis, synthesis and comparison. The research process will outline as results external and internal environmental factors, some of which have a favorable and others hinder the development of the digitalization process. In conclusion, the digital transition in general is not only important, but also necessary in order for businesses and public institutions to meet the dynamic development of technology and the accompanying requirements of modern society. The relevance of digital transformation has intensified, both in the business sector and in the public sector. While at the European Union's level, the next steps are being prepared for the transition to the providing of cross-border electronic public services, in Bulgaria the internal processes for digitalization of administrative services are lagging behind. The recommendations based on the research are connecting with the fact that digital transformation of public sector requires not only the application of certain tools, but a deeper rethinking, changing the behavior of society and reorganizing public systems in order to achieve effective supply and use of electronic services. The advantages of this type of transition are indisputable and are mainly in the easier and faster interaction between the various entities and public institutions and the significant reduction of costs. It is because of the awareness of these advantages that Bulgaria declares in its national policy intentions to accelerate the pace of development of the public sector in this direction, which is currently slow and the results are not effective enough. However, it should be noted that there is a difference between e-government and e-government services. E-government is a more complex concept and covers four main areas of relationships: administration-citizens, administration-business, administration-administration and administration-employees. This report examines the part aimed at providing services to citizens, which only concerns part of e-government.

Keywords: digitalization, administrative services, digital transition

1. INTRODUCTION

The process of digital transformation of the public sector has long begun in European countries, with some of them significantly more advanced and others still lagging behind. Here is the place to clarify the difference between e-public services and e-government. Digital services offered by public administrations are only part of the whole concept of e-government. It includes, in addition to them, all interconnections and processes taking place through information and communication technologies between administrative bodies, business and society. (E-Gov, 2022). Due to the need to objectively monitor the progress of individual countries and identify emerging weaknesses that hinder the pace of development, various instruments and indices are known. Among them are E-Government Development Index (EGDI), E-Participation Index (EPART), Digital Economy and Society Index (DESI), Digital Government Index (DGI), GovTech Maturity Index (GTMI), eGovernment Benchmark and others (European Commission, 2020) (United Nations, 2020) (European Commission, 2022) (OECD, 2020). Digital transformation is not in itself a one-time action or a separate project.

The complexity of the process determines the need for multiple iterations leading to organizational, functional and institutional changes (Larsson & Teigland, 2019). An OECD report examines the path of digital transformation of the public sector first as digitalisation as a process, then e-government and in the end digital governance. The latter integrates digital technologies and consumer preferences in the joint construction of service design and creation of public value (OECD, 2016). In view of Bulgaria's lagging behind in this process, it is of research interest to identify the factors that hinder the pace of digital development of the public sector. One of the main reasons for this lag can be the lack of sufficient investments, the need to model a new type of work processes in the administrative structures, the lack of periodic training of employees and others. (Kirilova & Naydenov, 2021). Dematerialisation has various advantages from the fact that it reduces costs to the ability to generate a large array of data, the analysis of which can achieve joint design of services that best meet the needs (Algan, Bacache-Beauvallet, & Perrot, 2016). The development of digital transformation in the public sector is regulated in a number of strategic and normative documents, both at European and national level, such as the 2030 Policy Program "Path to the Digital Decade",

Declaration by the Ministers responsible for e - Government policies on The European Union, adopted in 2009 in Malmö, Digital Agenda for Europe, National Program "Digital Bulgaria 2015", Strategy for the development of e-government in the Republic of Bulgaria 2014 - 2020 ect. (Council of Ministers, 2014) (Proposal for a Decision establishing the 2030 Policy Programme "Path to the Digital Decade", 2022). Along with the national policy, the coordination and organization of sectoral policies in the context of the principles of e-government are part of the building blocks of the process of digital transformation of the public sector. It is for this reason and their strong commitment that it is important to take an integrated, strategic and planned approach to their implementation.

2. MATERIALS AND METHODS

The research methodology is expressed in the construction of a research process, including the following stages:

- Study of existing indices for assessment of the digital transformation in the public sector and the approaches for their application through the methods of induction, deduction and content analysis. The range included nine indices that are relevant to the evaluation of e-government, both in Europe and more globally.
- Formation of a research core of indicators for comparison based on the scope and direction of the considered indices. Of the indexes studied in the previous stage, six were selected, the focus of which included an analysis of digital public services, part of the concept of e-government.
- Comparative analysis and definition of key focus areas. At this stage, a checklist was used to mark the most common evaluation indicators in the selected group of indices. Through the method of synthesis, six focus areas were formed, which covered all aspects of the applied observations.
- Interpretation of the results and systematization of starting points and factors for analysis of the digital development of public services in Bulgaria. In the final stage of the research, conclusions were formed based on the accumulated data and discussion questions were asked, focused on the challenges facing Bulgaria in the context of the digital transformation of public services.

3. RESULTS

The study is based on the systematization and analysis of six widely used indices¹³ for assessing the digitalization of the public sector, three of which are Europe-wide, and three use data from over 190 countries on different continents. Based on a study of these indices, six focus areas were identified, which represent the fundamental factors under assessment. The results are presented in Table. 1

Tabl. 1. Key Focus Areas for Assessing Digital Transformation in the Public Sector

	Index*	EGDI	EPART	DESI	DGI	GTMI	eGov-Bench
Focus areas							
Service and Connectivity		X		X			X
Digital Technology and Infrastructure		X			X		
Human Capital and Competence		X		X			
E-Government and Public Services				X		X	
User Engagement and Participation			X		X	X	X
Proactiveness and Transparency					X		X

Most often, based on the studied indices, a survey of indicators in the category of **User Engagement and Participation** is made (4 of 6). This fact is justified not only by the fact that, in essence, public services are aimed at society, but also by efforts to achieve greater transparency in the work of public authorities. Here it is important to clarify the importance of creating a two-way digital connection between citizens and institutions. Some researchers

¹³ EGDI - E-Government Development Index (193 countries)

EPART - E-Participation Index (193 countries)

DESI - Digital Economy and Society Index (27 countries)

DGI - Digital Government Index (33 countries)

GTMI - GovTech Maturity Index (198 countries)

eGov-Bench - eGovernment Benchmark 2020 (36 countries)

also add an innovative element to the standard provision of public services, focusing on the user-centric aspect and the introduction of personalized services, Participatory and Co-created digital public services (Bertot, Estevez, & Janowski, 2016).

Three of the surveyed indexes assess **Service and Connectivity** by addressing issues of network coverage, Internet service speed, and Cross-Border Mobility. This analysis allows us to trace the possibility of access to public services, both within the country and by users outside it. In the context of globalization processes and connectivity within the EU, the focus on these indicators is crucial for the quality and scope of services offered.

Two of the examined indices focus on the separate category of **Digital Technology and Infrastructure**, as the emphasis here is on building the technological infrastructure itself, which will support the networks for ensuring connectivity.

Human Capital and Competence is a group of indicators that assesses the competencies and preparedness of the providers of electronic public services, and again two of the examined indices include in their analysis data with such a focus. Despite this fact, the need for trained staff in public institutions that can be adequately involved in the process of digital transformation is essential. The degree of awareness of the need to invest efforts and resources in this direction can slow down or accelerate progress.

With regard to **E-Government and Public Services**, the emphasis is on the design of public services, their diversity, tracking the level of their application, as well as access to ancillary services such as e-filing and e-payment for example. The questions in the context of this group are the subject of a study of two of the considered indices.

Two indices are again directed to the evaluation of indicators in the **Proactiveness and Transparency** group, through which the extent to which the information provided on the offered administrative services is clear and accessible is monitored. On the other hand, indicators for the degree of transparency in the actions of the institutions are also studied.

Because of the systematization, the essential aspects are clearly highlighted, which presuppose a more in-depth and systematic study and the assessment of which is essential for the management of the process of digital transformation of public services. Due to the nature of administrative services in general and their focus on social satisfaction of various needs, it is quite natural that the aspects related to consumers and their participation are a key factor in the digital transformation.

4. DISCUSSIONS

Malta and Estonia are leaders in Europe in terms of indicators such as consumer orientation, technological security, transparency and openness of digital government, while Bulgaria lags far behind and occupies one of the last places according to e-Government Benchmark, Digital Economy and Society Index and Digital Government Index. . This fact determines the need for a more active policy in the direction of promoting the processes of digital transformation in the public sector in the country. The implementation of mechanisms to address challenges such as improving the quality and scope of digital public services offered is becoming increasingly important in the context of post-Covid-19. Social isolation during the pandemic accelerates the processes in this direction. In this context, questions arise as to how prepared the system is for the transition to intensive implementation and use of new technologies in the service of society. Is there a will and opportunity to invest in both technology and staff training? Internal resistance to the necessary organizational changes on the part of civil servants due to the traditionally cumbersome apparatus and the lack of desire for change is not excluded. On the other hand, digital transformation is also a two-way process, i.e. citizens and businesses need to be open to it. It is specific for Bulgaria that different age groups have not only different needs, but also different digital skills, and for some they are even completely absent (mostly over 65). People between the ages of 18 and 20 are the "mobile generation", which uses mainly smartphones, and digital administrative services in the country are almost non-existent in mobile applications. There are still many restrictions at the supranational level, such as underdeveloped cross-border mobility and the need for faster internet connection, respectively the improvement of the telecommunication infrastructure.

5. CONCLUSIONS

In conclusion, it is important to emphasize the fact that the digital transformation of the public sector worldwide has already begun, and the faster administrations adapt, the more benefit they will add. It is necessary to transform many processes and build new habits, both for employees and service users. In this regard, the research, analysis and evaluation of the various factors influencing the provision of e-government services and the development of Digital government in general are extremely important. In view of the significant lag of Bulgaria in terms of modifying the system and intensifying the pace of implementation of digital administrative services, it is necessary to apply a new, more systematic and more integrated approach to development. Identifying and adapting good practices is one way of overcoming negative influences, but national specifics and conditions that have an immediate impact must be

taken into account. It is the interconnections and specific weaknesses of the Bulgarian administrative system in the digitalization process that can be the subject of a larger and more in-depth study, which will provide the conceptual framework for adequate development.

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REFERENCES

- Algan, Y., Bacache-Beauvallet, M., & Perrot, A. (2016). Digital administration. Notes du conseil d'analyse économique Volume 34, Issue 7, 1-12.
- Bertot, J., Estevez, E., & Janowsk, T. (2016). Universal and contextualized public services: Digital public service innovation framework. *Government Information Quarterly*, Volume 33, Issue 2, 2011-222.
- Council of Ministers. (2014). E-GOVERNANCE DEVELOPMENT STRATEGY - 2014 – 2020 IN THE REPUBLIC OF BULGARIA . Извлечено от https://www.mtitc.government.bg/upload/docs/2014-03/1_StrategiaRazvitieEU_RBulgaria_2014_2020.pdf
- E-Gov. (2022). Електронно управление - Държавна агенция "Електронно управление"/Electronic Government - State Agency for Electronic Government. Извлечено от <https://e-gov.bg/wps/portal/agency/strategies-policies/e-management>
- European Commission. (2020). eGovernment Benchmark 2020. Извлечено от <https://www.capgemini.com/wp-content/uploads/2020/09/eGovernment-Benchmark-2020-Insight-Report.pdf>
- European Commission. (2022). Proposal for a Decision establishing the 2030 Policy Programme “Path to the Digital Decade”. Извлечено от <https://digital-strategy.ec.europa.eu/en/library/proposal-decision-establishing-2030-policy-programme-path-digital-decade>
- European Commission. (2022). The Digital Economy and Society Index (DESI). Извлечено от <https://digital-strategy.ec.europa.eu/en/policies/desi>
- Kirilova, K., & Naydenov, A. (2021). THE STATE OF E-GOVERNMENT AND DIGITAL ADMINISTRATIVE SERVICES IN THE REPUBLIC OF BULGARIA. *Busines Management*.
- Larsson, A., & Teigland, R. (2019). *Digital Transformation and Public Services*. New York,: Taylor & Francis Routledge. doi:10.4324/9780429319297
- OECD. (2016). *Digital Government Strategies for Transforming*.
- OECD. (2020). Digital Government Index 2019. Извлечено от <https://www.oecd.org/gov/digital-government/digital-government-index-2019-highlights.pdf>
- United Nations. (2020). e-Government Knowledgebase (UNeGovKB). Извлечено от <https://publicadministration.un.org/egovkb/en-us/Data/Country-Information/id/26-Bulgaria/dataYear/2020>