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Use of Digital Media in the Public Sector

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Abstract. *In the current context, more and more public services are offered in digital format, the trust of users in these online environments is essential to ensure the adaptation and use of these services efficiently and effectively. The main aim of the paper is to investigate and identify the factors that positively or negatively influence users' trust in public sector digital environments. The paper will refer to the way users interact with the digital services that the local public administration makes available. Based on the presented case study, it was possible to analyze the degree and mode of interaction of citizens with these online services. It could be concluded that the essentiality of increasing users' trust in digital environments in the public sector, by improving the accessibility, security and quality of these services, is crucial for promoting their use and for encouraging citizens' participation in the decision-making and administrative process. The most important factors that affect users' trust in digital environments in the public sector are the transparency of information, but also the security of personal data, the quality of information and the accessibility of digital platforms for effective use, respectively services and information to be up-to-date, easily accessible and the platform to be easy to navigate to streamline time spent on the platform or work time for public sector employees.*

Keywords: *digitization, online, public administration, PNRR.*

Introduction

The entire public sector in recent years has gone through a complex digitization process, which has expanded and managed to form the objective of providing public services in a much more accessible and efficient way, respectively through the prism of online environment (Anshari & Lim, 2017).

Since, this subject can be approached from several perspectives, according to the European Commission (Calin et al., 2022), the general context in the digitalization of the public sector, includes electronic government that supports administrative processes, improves the quality of services and increases the efficiency of the public sector at the internal level (Arsalan& Widyatama, 2020; Burlacu et al., 2022). At the same time, the direct, physical interactions of citizens with public administration employees are reduced, making these interactions much faster and more efficient, more transparent and less expensive (Negescu et al,

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2021; Burlacu, Pargaru et al., 2022).

One of the most important aspects for the use of digital services in the public sector is that the development of digital solutions is based on a continuous user-oriented approach and adaptation, to track and update the types of services taking into account their needs and expectation (Agostino & Arnaboldi, 2016; Burlacu, Diaconu et al., 2022)).

It is also important to provide concrete, clear and transparent information about the facilities offered through the lens of the online environment and to create an environment of trust for users who benefit from digital public services (Halachmi & Greiling, 2013).

Creating more open approaches to policymaking and public service delivery requires governments to reorganize themselves according to user expectations, needs and associated demands, rather than their own internal logic and needs (Buzoianu et al., 2020; Burlacu, Popescu et al., 2021). Government strategies need to become clearly embedded in mainstream modernization policies and service design, so that stakeholders outside government are included and take ownership of the final outcomes of major policy reforms (Chomchaiya, 2015).

Therefore, the importance of user trust in public sector digital environments is essential, firstly to maintain effective communication between citizens and authorities (Androniceanu et al., 2017), and secondly to ensure the accessibility and safety of information provided by the public sector for users of these types of services, regardless of the level of knowledge and digital skills of each user (Baker, 2018).

The main purpose of the paper is to investigate and identify the factors that positively or negatively influence users' trust in digital environments in the public sector, so that by analyzing the level of importance of users' trust in digital environments in the public sector, beneficial solutions can be identified for increasing their confidence.

The objectives aimed at in this paper are gradually represented by the general analysis of the digital services offered by the public sector, the assessment of the current degree of trust in the digital environments of the public sector, the identification of the factors that positively or negatively influence the trust of users in online services, and then the case study for analyzing these types of digital services. First of all, we mention the lack of qualitative research, through interviews or focus groups, which would have helped us to know much more deeply how consumers perceive the impact of digitalization on socio-economic life. Since the value is very dynamic over time, carrying out a longitudinal study instead of a cross-sectional one would add value to the research, in this case being able to observe its changes over time and the factors that influence it.

Literature review

The Organization for Economic Cooperation and Development claims that the use of digital technologies as an integrated part of governments' modernization strategies can unlock additional economic and social benefits for society. Thus, in the context of the use and development of the digital environment, their use by the public sector, such as platforms online and mobile applications, has become an essential component in the provision of public service (Schawab & Zahidi, 2020).

In many aspects, digital technologies represent an opportunity to accelerate progress and the achievement of the Sustainable Development Goals until the year 2030 (Radulescu et al., 2018). Most governments globally are rapidly increasing the use of digital technology, building opportunities and achieving more efficient services for citizens (Burlacu, Negescu et al., 2021). Countries with developed digital infrastructures have effectively shaped systems in response to the

COVID-19 pandemic compared to countries with less developed digital infrastructures. Digital transformation can lead to greater inclusion and further exacerbate inequalities, discrimination, marginalization of vulnerable people and flagging of human rights (Popescu et al. 2021).

Digital transformation can impact climate change and the environment through increased energy use, supply chain (material extraction, waste management) and increased consumption or unsustainable production patterns (Tsimaras, 2009).

UNDP supported more than 60 partner governments to implement critical digital technologies to maintain business continuity during the pandemic (Dimitrijevska-Markoski, 2018).

In the UNDP Strategic Plan 2022-2025, digitization is presented as one of the three key drivers – alongside financing innovation and development. The Strategic Plan supports partners in holistic digital transformation efforts, advocate for inclusion and responsible digital solutions for sustainable development and further digital transformation.

However, the digitization of the public service involves a number of problems and challenges. These include not only the transformation of public services, but also the transformation of core processes for public administrations, including public procurement (Buzoianu, Bălu& Tural, 2018). The widespread use of digital technologies is linked to three strategic objectives. The first objective is based on the digital transformation of public services of particular interest to "GovTech". GovTech refers to digital technology products developed to support the internal operations of public administrations or the provision of public services to citizens. The second objective refers to the opportunity to develop the European market in GovTech, and the third objective refers to the wider involvement of citizens – an important tool for the involvement of citizens in the functioning of public services.

Methodology

In this study we aim to identify the opportunities and challenges of cloud computing implementation, as well as ways to overcome them, with a focus on the public sector. The research method used is qualitative analysis, by documenting, observing and interpreting international and national studies in the field. To achieve this goal, the questions that require clarification are the following: 1. What are the challenges facing the implementation of cloud computing in the public sector? 2. What are the opportunities for implementing cloud computing in the public sector 3. What are the ways in which the public sector can overcome these challenges?

In line with the literature on technological innovation in the public sector, this paper assumes that both technology and agency play a role in processes of administrative and political change. In doing so, research design addresses both deductive and abductive reasoning (Ashworth et al., 2019; Mele et al., 2020). More specifically, this paper assumes that the mechanisms that explain policy success depend on the types of ICTs – deductively developed in section two – in terms of both causal depth and causal direction. In particular, Figure 1(b) describes the basic elements of our hypothesis and compares them to a model in which only technology plays a causal role. If technological determinism were assumed (Figure 1(a)), we would expect a particular type of technology to produce a governance pattern that matches its intra- and inter-organizational interdependencies.

Given the exploratory and theory-building nature of the research question, the only expectation that can be made is that, if our assumption is plausible, the mechanisms discussed in section three are likely to emerge in distinct patterns of varying depth and direction, defined by the types of technology.

To provide empirical evidence for the theoretical issues discussed above, this paper analyzes four case studies of ICT programs that have been found to be effective in the Italian public sector. In accordance with the main epistemological and methodological standards in the design of case-oriented research, such an inquiry strategy allows for both within-case and cross-sectional analysis.

In fact, while adopting a working hypothesis according to technological determinism would only require a comparative method to test the effect of different types of technology on outcomes, a within-case analysis is required because the role of agency and mechanisms is assumed causal, although how it works is not known. In this sense, congruence analysis (Blatter and Blume, 2008; George and Bennett, 2005: 182; Wauters and Beach, 2018), understood as a logic of investigation aimed at showing the plausibility of abductively raised theoretical claims, seems more appropriate. methodological compass for this work (see Appendix I). The study was carried out using a qualitative methodology, with document analysis and twenty-one semi-structured, face-to-face interviews with the most important decision-makers (duration range: 40-60 min).

In addition to the positive aspects of these works, we also identified a number of "shortcomings" on the activities, which we assume, even if some of them are not entirely the author's. these works

Results and discussions

There are various challenges faced by actors in the GovTech ecosystem, from technical challenges such as data quality, interoperability and lack of common standards, legal issues and ethical challenges, and growing concerns about the impact of GovTech on privacy, security, equity and other ethical issues.

The level of digitization in Romania

Romania ranks 10th on the dimension: Connectivity, slightly above the European average. There is a moderate loss of advance in the last five years. This trend is the consequence of the shortcomings of mobile broadband communications and the implementation of 5G technology. Romania's score must configure on the unlocking of the 5G spectrum allocation.

Connectivity and availability of mobile broadband communications are vital to a country's digital and economic development. The implementation of 5G technology brings significant benefits, including faster data transfer speeds, reduced response times and the ability to connect a large number of devices simultaneously.

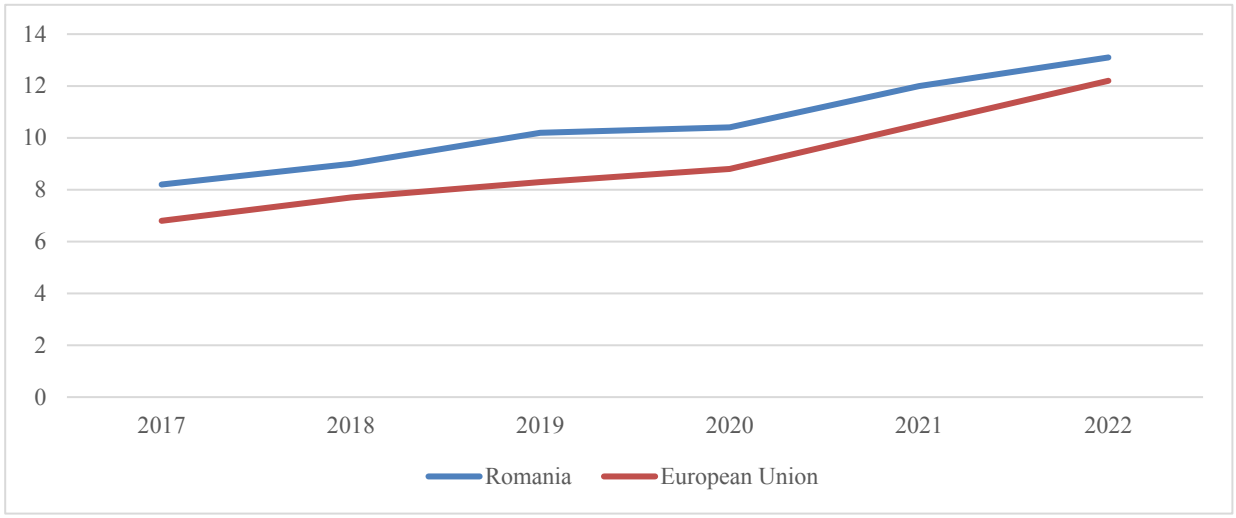

Figure 1. 5G technology and societal factors
Source: https://panorama.ro

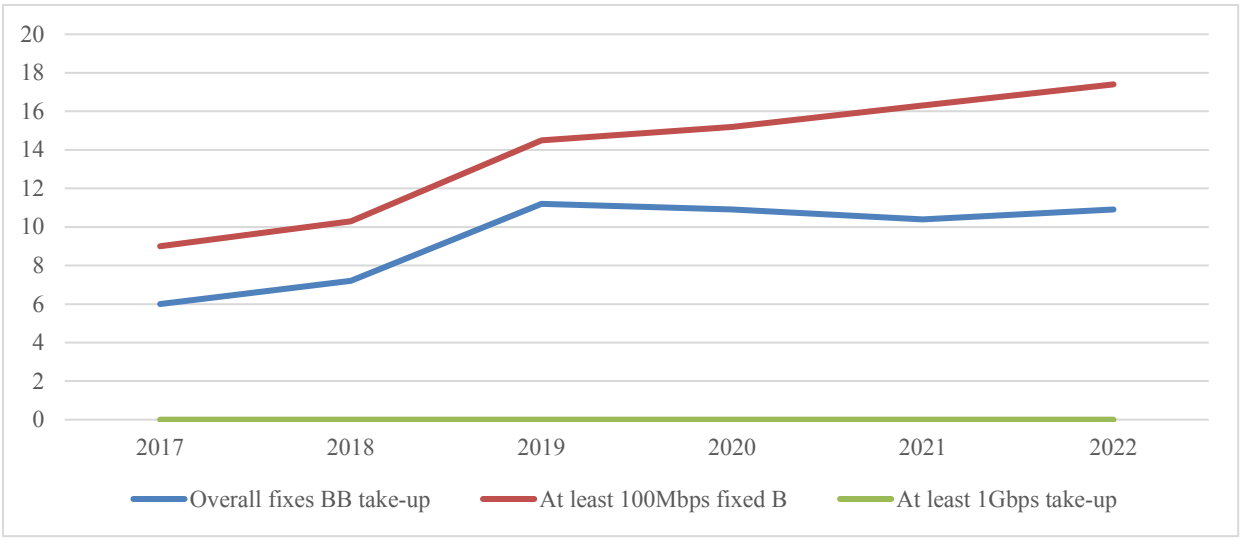

Figure 2. Fixed broadband reception

Source: https://panorama.ro/.

This aspect describes the percentage of homes with Internet access via fixed broadband networks. Those homes that are connected to technologies with speeds higher than 100 Mbps and 1Gbps are shown. In Romania, Information Technology is an industrial sector with the best perspective for our country.

One of the most important aspects for the use of digital services in the public sector is that the development of digital solutions is based on a continuous user-oriented approach and adaptation, track and update the types of services taking into account their needs and expectations.

It is also important to provide concrete, clear and transparent information about the facilities offered through the lens of the online environment and to create an environment of trust for users who benefit from digital public services (Munteanu&Newcomer, 2020).

The impact of the digitization process in Romania

The most common method of disclosing, sharing and distributing information has been the Internet for some time (New advances in IT&C have made it possible to use more complex procedures, interactive services and personalized use of available applications. For example, information is now distributed and shared through e-journals emailed to subscribers, sms and email notifications regarding the conduct of open discussions at the local administration level. Remote convening of meetings with the use of video conferencing is not only established in the private sector, but also in the public sector.

The availability of information may be a necessary condition for transparency, but it is not sufficient for using it. Factors such as lack of incentives or knowledge by citizens, possible apathy leading to inaction, information overload and low access to ICT reduce the impact of systems to make different information available to the citizen (Kowalski, Esteve & Mikhaylov, 2019).

Increasing the volume of huge and unmanageable data and information can ultimately have the opposite effect: there is no real assessment and estimation of the degree and intensity of influence exerted by large contributors and "eminent" contributors.

Therefore, the "filtering" of available information, the appropriate use of services and the "sorting" of important information from inconsistent information, through the abundance of available data, are equally fundamental processes for the correct and efficient use of information in public administration.

The latest advances in IT&C, with modernized Web systems and the new generation of Web design and development, pave the way for increased levels of interconnectivity and interactivity. Web 2.0, as many commentators have called the new evolution in ICT, can be defined as involving interactive tools and web-based media primarily aimed at creating a rich and interesting experience for

In this system, users are an integral part of adding value to online content and data, and their interactions with the information can significantly change the experience of downstream users. This definition captures the increased creativity and superior interaction that are the main features of the new system

Current trends in the development of public sector digital environments

Digital tools play an important role in our lives, companies are increasingly using digital solutions that are environmentally friendly and help to shape processes accordingly. If we recycle tons of paper we will protect a lot of trees. Using digital forms will reduce paper consumption and modernize business activities. It results in a competitive advantage and will further increase market share (Ashworth, McDermott& Currie, 2019).

The use of new technologies and digital tools can lead to time saved and the search for new customers in a new competitive market. With the help of digital forms, the data can be easily configured with the help of different variables. It results in sorting useful information. Digital data can be synchronized and have maximum access. In the future, data will be the key for public sector organizations to improve performance and services (Young, 2020).

It will be the cornerstone- "public policy deadlock" on complex issues, putting citizens in control of their interactions with digital services, exploiting new technologies such as artificial intelligence and increasing productivity.

The year 2024 will see many local public services expanding these connections, sharing services to reduce costs, manage demand, increase productivity and limit risk. Increasingly, it is recognized that the more complex 'relational services' - common in high-spend areas such as social

protection - require a different approach from a commercial perspective to a strategy based on co-design, collaborative use of digital tools and co-production with service users.

The potential of digital and technology in health services is vital. However, the real prize lies in the true integration of health into an ecosystem of local public services (Oancea Negescu Buzoianu, Lazar, Dima, 2020).

In the UK, the focus has been on increasing digital and technology investment. Leading healthcare CEOs are involved in a number of research points to a number of digital innovation developments- digital innovation in the public sector. The word "digitalization" is the element that will allow local health bodies and local government to work together, remove the restriction of a physical building, expand health care in the community and build a true citizen-centered service respecting the needs and wishes of users.

The pandemic has changed the nature of digital services and the priority of ensuring equal access to digital services for all.

The following digital priorities for 2023 are outlined: designing systems for easy access, including a renewed focus on digital identity; integration of digital and other service channels, including essential face-to-face support; uniting digital services around citizens' needs to make them easier to use; protecting citizens through digital services and personal data is well- managed; repurposing complex digital systems for easy smartphone use.

These are particularly important priorities for local governments that provide complex relational services that are often required by vulnerable people or minority groups in communities. Thus, they become barriers that affect the acceleration of digitization.

There are clear indications that the pace of digital delivery and IT improvements will increase in the future. A variety of methods and technologies will enable faster developments to meet changing needs. Low-code development methods based on cloud tools will increase in use, along with collaborative software development and operational delivery (DevOps) and agile methodologies.

The year 2024 will see a renewed focus in public organizations to prioritize the development of digital identity as a key method to better link service systems, protecting privacy and security, preventing fraud and empowering citizens to have more control over their interactions with authorities

Strategies for encouraging the use of digital platforms in the public sector

The Electronic Public Procurement System - is an electronic platform developed and implemented by public authorities, in accordance with public procurement legislation, to manage and carry out the procurement process in a transparent, efficient and accessible way, under the leadership and monitoring of the National Agency for Public Procurement - ANAP, ensuring the operation of SEAP falls to the Agency for Information Society Services.

The electronic public procurement system facilitates the submission of announcements for publication in the Official Journal of the European Union; publish announcements and invitations to participate; The Electronic Public Procurement System- SEAP is an electronic platform developed and implemented by public authorities, in accordance with public procurement legislation, to manage and carry out the procurement process in a transparent, efficient and accessible way, under the leadership and monitoring of the National Agency for Public Procurement - ANAP, ensuring the operation of SEAP falls to the Agency for Information Society Services.

The contracting authority has the obligation to register in SEAP. Economic operators have

the obligation to register in SEAP only if they are interested in participating in procedures carried out entirely electronically or if the contracting authority completes a procedure through an electronic auction. Through SEAP, the procedures can be carried out both offline (announcements and invitations provided for by the legislation are published in SEAP) and online.

National Recovery and Resilience Plan (PNRR)

Romania's National Recovery and Resilience Plan outlines an important agenda consisting of reforms and investments to resolve the socio-economic effects of the crisis caused by the COVID. The total amount of the plan was EUR 29.3 billion, 13.2% of GDP in 2019. The NRDP represents an important opportunity for Member States to accelerate investments in key sectors and make structural changes to improve economic and social competitiveness, sustainability and resilience.

At the same time, it contributes to the wider objectives of the European Union, such as combating climate change, the digital transition and creating a more inclusive and fairer Europe.

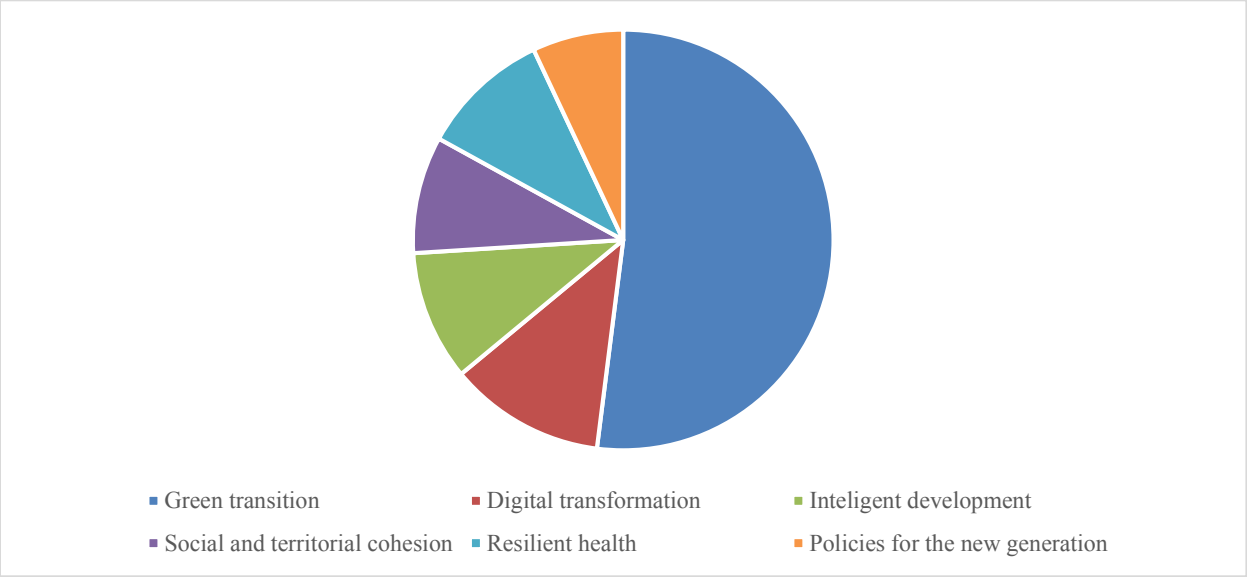

Figure 3. Breakdown of funding into pillars

Source: https://pnrr.fonduri-ue.ro.

Objectives and structure of the plan Romania submitted the PNRR, worth EUR 29.33 billion, to the European Commission on May 31, 2022. The basic objectives included the economic recovery and long-term development of Romania, outlining a series of structural vulnerabilities. A special emphasis is placed on "Next Generation" youth, the second pillar of the plan's financing - investments in the area of education.

Through the PNRR, Member States identify key objectives, structural reforms and investment projects in areas such as infrastructure, digitalisation, the transition to a green economy, innovation, education, health, scientific research, supporting the private sector and the labor market, including policies of social inclusion and combating poverty.

19 billion euros were allocated for the digital transformation component. This fund is intended for investments and measures that accelerate digitization in various sectors and develop the digital infrastructure in the country.

Conclusion

The main conclusions and findings of the dissertation regarding increasing user trust in digital environments in the public sector- e-gov are the following: digital environments represent a vital

component of the public sector, having the potential to improve efficiency, transparency and citizen participation in administrative processes; user trust in digital environments is essential for the adoption and successful implementation of digital solutions in the public sector; data security and privacy remain major concerns in the use of digital media.

It is crucial to implement appropriate measures to protect personal information and build trust in the use of these media. Transparency and accessibility of information are key aspects in increasing user trust.

Providing clear, up-to-date and accessible information to citizens contributes to creating a climate of transparency and stimulating active participation in administrative processes.

The quality and reliability of services offered through digital media are essential to gain the trust of users.

Ensuring a smooth user experience and providing high-quality services are key factors in increasing citizens' trust. Participation and involvement of citizens in decision-making processes contributes to increasing the trust and legitimacy of digital media in the public sector. Citizens must have the opportunity to express their opinions and be involved in the decisions that affect them.

The paper highlights the importance of building user trust in public sector digital environments and highlights the critical issues that need to be addressed to achieve this goal. By implementing appropriate measures and taking into account the needs and expectations of citizens, the public sector can promote trust and adoption of digital environments, thus leading to a more efficient, transparent and participatory public administration.

To improve user trust in public sector digital environments, the following recommendations can be considered: Investing in data security and privacy: Having robust cyber security measures in place to protect users' personal and sensitive data. By implementing these recommendations, the trust of users in digital environments in the public sector was increased, promoting the wide and effective use of technology in the citizen-authority relationship and building a more transparent, participatory public administration oriented to the needs of citizens.

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