Digital Public Administration and the Perspectives of Sustainable Development in Romania

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Abstract

The Romanian Digitalization Authority is currently proposing a new vision in the public sector through the digital transformation component. It's a vision of the business environment. It is estimated that the benefits of digital transformation, such as efficiency, transparency, and simplicity, could lead to much higher process productivity. The vision that ADR will develop in its work is based on the awareness of the need for new technologies by the leaders of public institutions, the continuous adaptation to the requirements of citizens, quality, secure and fast online public services. However, the question arises whether this vision also considers the perspective of sustainable development in Romania in terms of sustainable development indicators. To be able to answer this question, we used as a research method the documentary analysis doubled by an analysis of the indicators of the sustainable development of Romania for the last five years. The review of the specialized literature gave us the chance to identify the particularities of the digitalization of public administration from other countries and to highlight the specific characteristics of Romania. A comparative analysis of sustainable development indicators will be the subject of our further research.

Keyword: sustainable development, digitalization, public administration, indicators of sustainable development

1. Introduction

European Commission (EC) ideas that digital technology is revolutionizing our lives are welcomed by us. EU digital strategy aims to benefit citizens and businesses while also contributing to a climate-neutral Europe by 2050, according to the European Commission. The European Commission wants this decade to be known as Europe's "digital decade." Instead of relying on outside standards, the EU should reinforce its own digital sovereignty by setting its own, with a particular emphasis on data, technology, and infrastructure. The Digital Economy and Society Index (DESI) reports have been issued by the European Commission every year since 2014. Thematic chapters and nation profiles are both included in DESI reports. In addition, each Member State's report includes a detailed chapter on telecommunications, nation-specific policies and excellent practices are included in DESI country reports, which include quantitative data from the five dimensions of the index. The Recovery and Resilience Mechanism and the Compass for the Digital Decade, two important policy initiatives that will have an impact on the EU's digital transformation in the future years, were incorporated into the DESI in 2021 by the Commission. For the 2021 edition of DESI, a few adjustments have been made by the

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European Commission to align it with the four major goals and objectives of the Digital Dimension Compass and improve the methodology. To replace the old five-dimensional framework, indicators are now grouped into four key categories of the Compass for digital dimension. DESI 2021 indicators measure 11 of the Compass's digital dimensions objectives. All goals will be met in the future when DESI is matched more closely with the digital dimension compass. A new indicator, ICT for environmental sustainability, analyzes how much support businesses have received from the adoption of gigabit services and ICT for environmental sustainability, as well as the percentage of businesses that offer ICT training and use electronic invoicing. Countries' DESI score and ranking have been updated from prior years to reflect changes in indicators and data corrections. According to the Digital Economy and Society Index 2021, Romania is ranked 27th out of the 27 EU member states (DESI). As measured by the quality of its workforce, Romania ranked 26th in the world. Even though Romania has a big number of ICT graduates (ranked 4th), the country's potential to innovate and take advantage of digital transformation is limited by a lack of ICT specialists. According to the number of female IT professionals, Romania ranks third. In terms of connectivity, fixed broadband coverage improved in 2020, but adoption of broadband services slowed. As a result of its high bandwidth utilization of at least 100Mbps, Romania ranks 7th in the world (52 percent). The digital divide between urban and rural regions could be bridged, licensing procedures could be streamlined, the broadband strategy could be updated to reflect the 2025 gigabyte ambitions, and the regulatory framework could be transposed correspondingly, all of which could improve Romania's connectivity. in accordance with European Union law. Except for artificial intelligence, Romanian businesses do not fully utilize digital technology (such as electronic information interchange, social media platforms, vast volumes of data, and the cloud). Digital public services for residents and enterprises, e-government service users, and pre-filled forms are all evidence of Romania's poor performance in this area (European Comission, 2022).

2. Literature Review

In September 2015, the 193 governments that are members of the United Nations came to an agreement on the 2030 Agenda for Sustainable Development. This agenda includes 17 Sustainable Development Goals (SDGs) (Heinrichs & Laws, 2021). The Sustainable Development Goals (SDGs) are a promise made by all member states of the United Nations to pursue development activities, such as eliminating poverty and hunger, promoting well-being and education, decreasing inequality, cultivating peace, and safeguarding the environment (Janowski, 2016).

Digitalization of public administration has as its strategic goal the transformation of the interaction between government and society so that citizens regard administrative acts as accessible, transparent, accountable, and tailored to the current digital paradigm(Baesu, 2021). A more inclusive approach to sustainability has emerged from Brundtland's report, focusing on "socially and ecologically sustainable economic growth," according to Firoiu et al. (2019). Now it might be just as vital to consider the overall socio-economic growth of a country or region from the perspective of the people who live there as it was before(Firoiu et al., 2019). Păvăloaia et al (2019) found that the Romanian public sector

has a high level of digitization of job activities. Employees utilize fixed and portable computers to complete their professional activities, and they do so using specialized software, according to their argument. It is believed by Romanian researchers that this high level of digitalization will force employees to gain the knowledge and skills, including ICT skills, necessary to fully utilize technology as a "partner" in the workplace and to contribute sustainably to their own advancement and that of their organizations. Employees see ICT as a means of enhancing economic output and decreasing expenses, as well as a means of improving the dependability and efficiency of the organization's operations. There is another important aspect of their study that highlights the vast majority of workers are satisfied with their jobs along with the unwillingness of employees who are unsure, exhausted or stable to engage in learning processes, namely in courses hoped for by employers or themselves and refuse to migrate into another job (Pavaloaia et al., 2019). Romania's e-Government transformation at the regional level would benefit from new solutions that help build the regional relationship and agglomerate the region's intellectual capital in order to handle the complexity of contemporary development issues (Mureşan, 2010).

For nations such as the United States, Japan, and South Korea, monitoring technical advancement in order to enhance national performance has become one of the European Commission's primary focal points. The Digital Economy and Society Advancement Index (DESI) is the product of this system, which is a tool that can identify a data system that can measure the amount of technology development at the macro- and micro-economic levels (Russo, 2020).

According to recent studies, global sustainable development necessitates the adoption of similar objectives and activities. Because of this, a new era of global collaboration in dealing with sustainability challenges would have evolved with the introduction to the Millennium Development Goals (MDGs). New political compromise on sustainability concerns emerged in 2015 when 193 United Nations members agreed on a new phase of cooperation on solving socioeconomic and environmental issues at the country level following their 2015 closing agenda. Stakeholders stated their desire to work together to accomplish the Sustainable Development Goals (SDGs) by 2030, which include 17 goals and 169 objectives. As a result, various scientific research will focus on analyzing and evaluating the fundamentals of the Sustainable Development Goals and Index (Nagy et al., 2018).

For the sake of long-term growth and protection of the common good, the Romanian legal system provides norms and structures that bring together public and private players. Reality, on the other hand, has proven that this ideal framework has been altered by numerous administrative dysfunctions or particular economic interests (Nae et al., 2019). Modernizing local government administration may be a powerful tool for community growth and development. In this situation, greater managerial autonomy and accountability for outcomes are required (Profiroiu & Radulescu, 2019). It has been a revolution in the way institutions and economic systems organize and execute tasks in more complex and unpredictable contexts during the final decade of the 21st century. Companies are digitizing their operating systems more than ever due to the recent breakout of the COVID-19 pandemic, for example (Onyango & Ondiek, 2021).

3. Methodology of Research

Our research uses bibliometrics. Bibliometrics is the statistical study of books and papers. Proliferation of information and communication technology and electronic publication have led to increased usage of bibliometric methodologies. Bibliometrics studies academic literature quantitatively. The study of bibliometric networks, such as co-authoring, bibliographic coupling, and citation networks, dates back to the 1960s and 1970s (Perianes-Rodriguez et al., 2016). In-depth analyzes of primary sources and studies in the literature were selected to be the main research methodologies. These are amplified by research conducted in published papers on IT&C tools as well as recent studies on sustainable development. Most of the study consisted of research and analysis of documents. Citation, co-citation, bibliographic linking, co-occurrence of keywords and co-authoring networks are the most researched bibliometric networks. dependent on time. Today, bibliometric networks may be viewed using a variety of software tools. Recent research focuses on VOSviewer and CitNetExplorer (Eck & Waltman, 2016). Because these databases contain a significant number of bibliographic references, in order to highlight the links between ideas and concepts, the VOS viewer was chosen to be used in the process of visual representation and analysis of data. VOSviewer is a computer application for constructing, viewing, and exploring bibliometric maps of science. It can evaluate citation links between publications or journals, collaboration ties between researchers, and the formation of linkages among scientific terminology (Perianes-Rodriguez et al., 2016). It is imperative that this distinction is always retained, as individual researchers can potentially be incorporated into bibliometric networks. The construction of networks based on citations and bibliographic activity can be done using co-citations or connections with authors. For this reason, we used the VOS viewer to analyze visual representations to emphasize the connections between concepts found in these databases (Burlacu et al., 2019). When selecting a software solution, text extraction skills were considered, as the application would be used to build and illustrate co-emergence networks of major issues gathered from a body of scientific literature. The documentary investigation revealed several features that led us to suspect that the widespread adoption of digital technology has the potential to have a substantial influence on both the economy and society.

4. Results and Discussions

The emphasis on scient metric indicators may underline the significance of bibliometric analysis. Since the citations of works in this subject have been steadily increasing through time, we may conclude that contemporary works can similarly accrue considerable numbers of citations if they deal with issues that are of particular interest. The Aspiration-Capacity Gap in the Implementation of Sustainable Development Goals with Digital Governance is one of the most referenced publications from four years ago (Janowski, 2016). Scientific publications in both databases (Web of Science and Scopus) show that e-services technology may be integrated into European sustainable development strategy if they were used to provide public services. To demonstrate how technology and public administration are evolving in tandem, we might look to a case study in sustainable

development strategies.

Figure 1. The main concepts used in the articles addressing the digitalization of public administration from the perspective of sustainable development
Source: own processing with the help of VOSViewer

Recent study demonstrates that institutions are not actors, and it is advised to address the adaptation actions of those social groupings that link technology to institutions. Examples of successful economic implementations based on digital platforms are shown in research on digitalization in society, which indicates how important it is to establish digital platforms for sustained economic growth. State involvement is examined in the conception and execution of this policy. In public administration, the use of digital platforms. Researchers hope to show how a digital platform may be transformed and evaluated into a decision-making monitoring system that can aid in the building of a sustainable world (Stepanova et al., 2020). As an example, four forms of digital management in Russia are discussed in study.

Figure 2. Countries appearing in at least 5 digital sustainability studies
Source: own processing with the help of VOSViewer

These exhibit the impact of exaptation, in which an institution imports live basic functions and obtains extra functions connected with the replication of power-property relations. For some, Internet technologies are organically linked with institutions that increase citizens' opportunities for democratic participation (electronic signature collection in government appeals, electronic reporting by government agencies, electronic voting during elections), but in China's system of social ratings, institutions that limit these opportunities have developed. Rather than viewing information and communications technology (ICT) as an absolute good that ensures society's well-being, the authors argue that it should instead be viewed as a data processing tool that can be used both for the good of society and for its detriment to better manage Russia's computerization development. Information technology (IT) is viewed as a tool for decision-making rather than a decision-maker in and of itself because it opens new possibilities for decision-making, preparation, execution, and control, all of which have the potential to multiply the consequences - both positive and negative - of any given decision on (Lukashov et al., 2021).

5. Conclusions

Many scientists, particularly at universities, have expressed their discomfort with the increasing use of quantitative measurements to quantify their scientific output, which might imply that scientific advancement is numbered or quantifiable. Because of this, colleges and universities are becoming more and more like factories, which is not ideal. Despite the existence of a few Scient metric indices, some researchers argue that it is impossible to tell which of two recently published papers will have the greatest impact on setting future research agendas, generating innovation, and many citations in the scientific literature, despite the existence of these indices. E-government and e-services are challenging for researchers who want to know if previous research on e-government systems focused on promoting successful public governance and regulatory management believes that the introduction of technology in public administration can be a tool for sustainable development. The effective use of sustainable online services and citizen engagement are critical components of sustainable development, according to research on the advantages of e-government. Recent studies have shown that social, economic, environmental, and information and communication technology (ICT) growth is a major factor in determining the present situation, which is often referred to as digital civilization. To some, it is believed that this term and its derivatives reflect an ethical ambiguity inherent in today's digital economy. As infrastructure evolves, networks become more personal and personalization becomes more prevalent, there is a possibility that our ethical foundations will shift accordingly. contact between people of different cultural backgrounds. Individual and collective cultural practices and patterns of conduct based on a new hierarchy of values would therefore be of particular importance in social and humanitarian understanding.

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