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Exploring Digital Transformation in Public Administration: A Qualitative Study

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Abstract: *Digital transformation has become a key driver of change in public administration, reshaping institutional processes, service delivery, and interactions with citizens. This paper explores how public servants involved in the implementation of digital transformation perceive it within Romanian local public administration. Adopting a qualitative research design, the study addresses seven research questions aimed at identifying perceptions related to implementation challenges, technological adoption, organizational change, and anticipated outcomes. Data was collected through semi-structured interviews and analyzed using NVivo (version 14) qualitative data analysis software. The findings indicate that a set of interrelated factors shapes digital transformation in local public administration. While the adoption of digital technologies contributes to improved efficiency, enhanced transparency, reduced bureaucracy, faster document processing, and better citizen engagement, it also presents significant challenges. These challenges include budgetary constraints, resistance to change, and difficulties related to the adaptation and training of public servants. Overall, the results underscore the need for coherent digital strategies that integrate technological innovation with human resource development and institutional capacity-building in the public sector.*

Keywords: *digital transformation, public administration, qualitative research*

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Introduction

Technology is advancing at a rapid pace, and adapting to change is essential in order to take advantage of the enormous opportunities it offers, but also to cope with the challenges in this world of volatility, uncertainty, complexity, and ambiguity (Shahi & Sinha, 2021; Paraschiv et al., 2024). Qualitative studies in this field are becoming increasingly common, with researchers emphasizing the importance of understanding trends, influencing factors, and behavioral changes that are identified in research reports (Corbin & Strauss, 2015; Charmaz, 2020). Information technology has left its mark on this research method through the development of software packages that enable complex analysis of the collected data (Kuckartz & Rädiker, 2023).

In the context of digital transformation in public administration, research based on qualitative analysis provides a clear picture of how the parties involved in the implementation process perceive digital transformation. This type of analysis provides support for identifying the factors influencing behaviors generated by the implementation of digital technologies (Shahi & Sinha, 2021). Understanding how these factors are perceived by key stakeholders is therefore essential for ensuring the effectiveness and sustainability of digital transformation initiatives in the public sector.

The objective of this research is to identify public servants' perceptions of the challenges and opportunities generated by digital transformation in public administration. A thorough understanding of these challenges and opportunities can generate multiple benefits for public entities, but also for the beneficiaries of public services. Accordingly, seven research questions (RQ) were addressed:

RQ1: What is public servants' perception of the digital transformation implementation process in local public administration?

RQ2: What type of digital technologies are used in local public institutions?

RQ3: What are the benefits of digital technologies in local public administration?

RQ4: How does the implementation of new digital technologies influence staff attitudes, and what role does professional training play in helping them adapt to change?

RQ5: What is the perception of citizens on using digital services?

RQ6: What is the perception on the future of digital transformation in local public administration?

RQ7: What changes are taking place in the approach to ethics and security in the context of digital transformation?

The practical implications of the findings are reflected in a set of recommendations aimed at developing measures to adapt staff to the conditions imposed by digital transformation, measures regarding ethics and security in the context of digital transformation, thus constituting an important source of inspiration for the design of strategies and policies in the field of digital transformation in public administration.

1. Literature review

The analysis of the literature formed the basis for the research questions and associated items. Technological transformations are currently reshaping the structure and strategies of public administrations and are expected to stimulate policy efficiency and integration. However, the literature on digital transformation has shown that the introduction of technology is far from a smooth process, as it is often associated with conflicts and negative feedback (Ahn & Chen, 2022; Madan & Ashok, 2023).

The literature on digital transformation of public administration often focuses on the needs and benefits of stakeholders outside of organization (Nabatchi et al. 2017), while ignoring other important stakeholders, such as the employees. Therefore, the barriers can be addressed and reduced by involving the individuals that are the target of the changing processes (Merhi & Bregu, 2020; Xanthopoulou et al., 2022). According to these opinions, the first research question was addressed:

RQ1: What is the public servants' perception of the digital transformation implementation process in local public administration?

Milakovich (2021), in his research, describes different digital technologies adopted by public administration (digital systems of management, electronic services, online payments) and emphasizes their advantages: increasing the efficiency of public administration, reducing administrative costs, improving the quality of the public services, assuring their availability and reducing the corruption level. According to research, the introduction of digital technologies in public administration supports processes to streamline activities in this area and contributes to improving the quality of public services provided. (Ahn & Chen, 2022; Androniceanu, 2023). Consequently, the next two research questions were designed:

RQ2: What type of digital technologies are used in local public institutions?

RQ3: What are the benefits of digital technologies in local public administration?

Researchers emphasize that human resource training and assessment, leadership, organizational strategy, and the creation of digital culture have a significant impact on the successful implementation and adoption of digitalization projects. (Porrúa el al., 2021; Xanthopoulou et al., 2022; Fleischer & Wanckel, 2024). Studies highlight that the staff attitude can become a barrier to the digital transformation process (Melton & Meier, 2017; Jones, et al., 2021). The mentioned studies formed the basis for the following research question:

RQ4: How does the implementation of new digital technologies influence staff attitudes, and what role does professional training play in helping them adapt to change?

Citizen satisfaction regarding the electronic services is the key to the success of their implementation. Satisfaction describes the subjective evaluation of the e-service encounter by the customer. The importance of citizens' support for electronic services and their satisfaction with electronic services have been highlighted in research articles representative of the field of public sector digitalization (James et

al., 2017; Prokop & Tepe, 2022). Based on these ideas, the fifth research question was designed:
RQ5: What is the perception of citizens on using digital services?
Artificial intelligence-driven technological innovation is making progress in public administration following the e-government innovations of the last decade, focused on efficiency and cost reduction goals (Agarwal, 2018; Ahn & Chen2022). The technology-centric smart public governance model engages citizens through digital platforms and advocates for simplified service delivery without compromising quality (Wirtz & Müller, 2018). Thus, the sixth research question was outlined:
RQ6: What is the perception on the future of digital transformation in local public administration?
Digital ethics research is a reaction to the widespread adoption of digital technologies, which have begun to significantly affect all aspects of people's lives, changing communication approaches and becoming disruptive of technology and moral principles (Muliawaty & Framesthi, 2020; Mišić, 2021). In line with these views, we formulated the last research question
RQ7: What changes are taking place in the approach to ethics and security in the context of digital transformation?

2. Research methodology

In this study, a qualitative approach was used to identify relevant answers to the seven research questions, which formed the basis for the analysis of the implementation of digital transformation in public administration. The research was conducted between September and November 2025, based on a qualitative questionnaire with open-ended questions that was completed by 15 public servants involved in the process of implementing digital transformation in public administration. The 15 responses were centralized, with respondents benefiting from anonymity.
The interview was structured in two sections: the first one included thirteen open-ended questions addressing the research questions and the second one included four questions related to the respondents' socio-demographic profile. The questions focused on the process of implementing digital transformation in public administration, the types of integrated digital technologies, the advantages of implementing digital technologies, staff adaptation to digital transformation, citizens' perception of the use of digital services, the future of digital transformation, and ethical and security challenges in public administration.
The socio-demographic profile of the respondents highlights their structure in terms of position within the institution, gender, level of education, and experience in implementing digital technologies. We note that the educational level of the respondents is high, with 66.67% having postgraduate degrees. Also, experience in implementing digital technologies is relevant, with approximately 66.66% of respondents having more than five years of experience, which supports a clear understanding of the topics associated with this study (Table 1).

Table 1. Socio-demographic characteristics of the respondents (%)

Socio-demographic characteristics	Category	%
Position within institution	Technical Specialist	33,33
	Inspector	26,67
	Head of Department	20
	Administrator	13,33
	Systems Engineer	6,67
Gender	Male	60
	Female	40
Level of education	Bachelor's degree	33,33
	Master's degree	66,67
Experience in implementing digital technologies.	< 1 year	6,67
	1-5 years	26,67
	5-10 years	33,33
	10-15 years	20
	> 15 years	13,33

Source: Authors, 2026

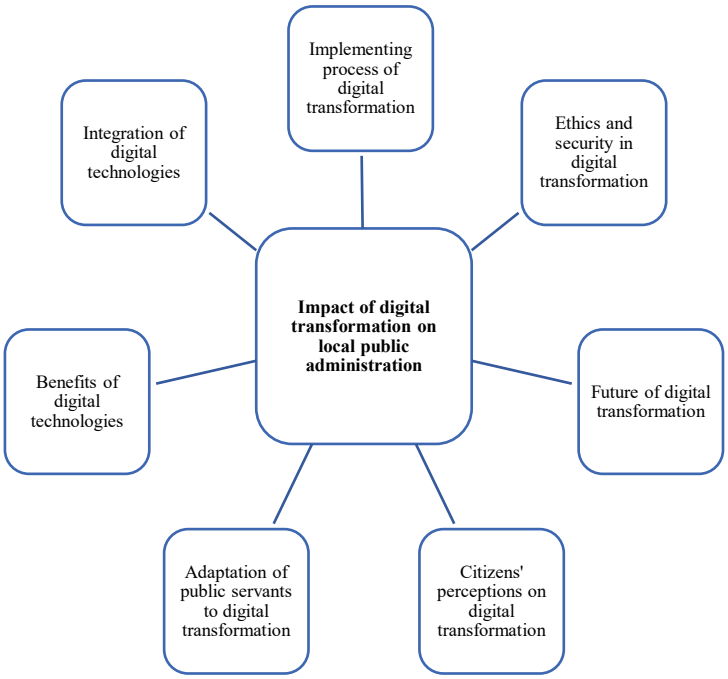
For data analysis, NVivo (version 14) software was used, which is software designed for qualitative data analysis, designed to support researchers in the process of organizing and analyzing qualitative data. The research was based on thematic analysis and sentiment analysis. The responses obtained by interviewing the respondents were manually coded to support the thematic analysis. The emotional tone was identified using sentiment analysis, which is useful in evaluating different expressions in qualitative analyses.

3. Findings and discussions

Respondents' answers highlighted seven themes: the process of implementing digital transformation in public administration; the integration of digital technologies at the level of public administration; the benefits of digital technology in public administration; the adaptation of staff to digital transformation; citizens' perceptions of digital transformation; the future of digital transformation in public administration; and ethics and security in the digital transformation process.

Figure 1 shows the seven themes that define perceptions of the impact of digital transformation in local public administration, organized within a project map, a visual tool that presents the ideas underlying the research in a structured manner.

Figure1. Project map of the seven themes



Source: Authors, 2026

3.1 Thematic analysis

The process of implementing digital transformation in local public administration

The RQ1 analysis highlights various views and perspectives on the challenges of implementing digital transformation in local public administration. Resistance to change and difficulty in adapting is the most dominant theme, with 18 codes identified and an importance of 30.00% (Table 2). Resistance to change and difficulty in adapting are perceived by respondents as one of the main challenges they face in the process of implementing digital transformation, with a significant impact on the successful implementation and adoption of digital technologies. The following examples support the above statements:

Respondent 1: "*The main challenge is reluctance to change - natural characteristics in the transition to something new - also, the staff was the most challenged because, in parallel with their daily work, each team member had to allocate additional time and energy to learn the new procedures*." (1.1).

Respondent 4: "*Mainly users' reluctance to embrace the new*." (1.1).

Respondent 7: "*For the most part, it was my colleagues' reluctance to accept new digital technologies, for fear that they would not be able to cope with them*." (1.1).

The next most important theme (25.00%) is technological complexity. Below are some examples from the respondents' answers:
Respondent 7: "*The process of implementing new technologies is a complex one that requires careful analysis of all types of work activities*." (1.2).
Respondent 9: "*It was a complex process in which we went through several stages, from planning and analysis to implementation and monitoring. We had to identify the needs of the institution and set objectives. We had to understand the existing challenges and how new technologies can contribute to streamlining internal processes, improving public services for citizens, and reducing costs. Then we had to choose technologies that would be compatible with the existing infrastructure and at the same time be scalable*." (1.2).
The next most important issues are related to the complexity of the management process (21.67%) and budget constraints and insufficient resources (8.33%) for the successful implementation of digital transformation in public administration.

Table 2. Subthemes found for RQ1

No.	Subtheme	Number of coding references	Percent (%)
1.1	Resistance to change and difficulties in adapting	18	30,00
1.2	Technological complexity	15	25,00
1.3	Complexity of the management process	13	21,67
1.4	Budget constraints and insufficient resources	5	8,33
1.5	Ensuring data security	3	5,00
1.6	Integration of new technologies	3	5,00
1.7	Employee involvement	2	3,33
1.8	Time constraints	1	1,67

Source: Authors, based on software NVivo

There is a complex set of factors that manifest in challenges to the digital transformation process and constitute subthemes of the main node related to research question 1. These factors are reflected in the respondents' answers:
Respondent 12: "*Regarding the main challenges encountered during the implementation of digital transformation, I can highlight several important aspects that were significant obstacles but were ultimately overcome thanks to careful planning and effective collaboration. One of the biggest obstacles was resistance to change from some staff members who were already familiar with traditional processes and had fears about using new technologies. This was particularly challenging among older employees, who were not as comfortable using digital applications. However, through ongoing training sessions and constant support, we were able to overcome these reservations, and staff gradually adapted to the new systems*." (1.1, 1.2)

Respondent 14: "*The lack of digital skills among staff was an initial barrier. We organized intensive training sessions to increase confidence and overcome reluctance to use technology*." (1.1, 1.2).
The results obtained are consistent with the existing scientific literature. The research conducted by Edelmann et al. (2023) highlights similar technical and economic challenges that can hinder the implementation of digital transformation projects, as well as the emotional barriers that can slow down these processes. Understanding potential barriers is essential for transforming the organization and working practices (Disselkamp & Heinemann 2018).

Integration of digital technologies at the local public administration level
The thematic analysis of RQ2 highlights six subthemes related to digital management systems, electronic portals and services, cybersecurity systems, cloud systems and data analysis, online payment systems, and the introduction of electronic signatures (Table 3).

Table 3. Subthemes found for RQ2

No.	Subtheme	Number of coding references	Percent (%)
1.1	Digital management systems	14	36,84
1.2	Portals and electronic services	11	28,95
1.3	Cybersecurity systems	4	10,53
1.4	Cloud systems and data analysis	4	10.53
1.5	Online payment systems	3	7,89
1.6	Introduction of electronic signatures	2	5,26

Source: Authors, based on software NVivo

Respondents mentioned digital management systems as the main theme for the integration of digital technologies, with a frequency of 14 codes and an importance of 36.84%, followed by electronic portals and services (frequency of 11 codes and importance of 28.95%). Below are some of the respondents' answers, which support the importance of the subthemes presented above:
Respondent 5: "*Specific applications and databases have been developed and implemented both to improve the daily work of civil servants and to meet the public service needs of citizens. An online system for submitting requests and receiving responses has been developed, and an online scheduling service has been implemented (for public services that have a public schedule), and a public information system based on artificial intelligence was implemented (virtual advisors)*." (1.1, 1.2)
Respondent 7: "*The digital technologies introduced were: document management, electronic archiving of existing and future documents, and an electronic services portal for citizens*." (1.1, 1.2)

Cybersecurity systems (10.53%) and online payment systems (7.89%) are the next themes discussed and highlighted in the respondents' answers:
Respondent 6: "*The main purpose of the digital technologies implemented within the institution is to streamline internal activities and improve citizens' access to public services. From this category of implemented technologies, we mention the following: document management, electronic archive management; electronic services portal, citizen complaint portal, cyber protection systems, various systems for paying local taxes and fees*". (1.1, 1.2, 1.3, 1.5)
Respondent 8: "*The following types of technologies have been implemented within the institution: online services for citizens: submitting requests for information, online forms, online appointments; document management system; local tax payment system; GIS system for submitting applications for residential parking, obtaining building permits and urban planning certificates; online voting system, currently being implemented; implementation of security policies for better information protection*" (1.1, 1.3, 1.5)
The integration of digital information and communication technologies (ICT) to reform public administration is a complex process that aims to streamline this sector and improve the quality of public services. The findings are similar to those highlighted by Milakovich (2021). He examines the assumptions underlying the "e-government revolution" considering financial constraints, explores the transition from e-government to digital government, and emphasizes the importance of citizen participation and the integration of digital technologies to achieve good e-government. The integration of digital technologies is shaping the strategies for organizational transformation in public administration (Gil-Garcia et al., 2018).

The benefits of digital technologies in local public administration
The RQ3 thematic analysis highlights topics related to the benefits of implementing digital technologies, as shown in Table 4.

Table 4. Subthemes found for RQ3

No.	Subtheme	Number of coding references	Percent (%)
1.1	Facilitating access to online information and services	17	36,17
1.2	Increasing efficiency by simplifying administrative processes	14	29,79
1.3	Increasing institutional transparency	5	10,64
1.4	Reducing costs	4	8,51
1.5	Reducing human error	3	6,38
1.6	Reducing document processing time	2	4,26
1.7	Reducing waiting time	2	4,26

Source: Authors, based on software NVivo

Most responses highlighted the main advantage of digital technology in public administration as being the facilitation of access to information and online services (36.17%). The following responses from respondents support these ideas:
Respondent 8: "*Easy access to information relevant to citizens (citizens can track the status of their applications, make online appointments for certain services, reducing waiting times). Significant reduction in human error through automatic validation of data entered by citizens*." (1.1, 1.5, 1.7)
Respondent 11: "*The main advantages are: easy access to information, both for citizens and civil servants. The fact that everything is generated in the form of an electronic archive makes it possible to store information for a long period of time, eliminating the need to request additional documents that are already in the archive*." (1.1)
Increasing efficiency by simplifying administrative processes is the second most frequent theme identified in the thematic analysis, with 14 codes assigned and a percentage of 29.79%. This highlights the respondents' perception that simplifying administrative processes plays an essential role in increasing efficiency in public administration:
Respondent 6: "*The main advantages of digitalizing local public administration activities are: (a) Improved access to services for citizens - public institutions can offer citizens services that are available online, remotely, without citizens having to travel to the institutions' offices. At the same time, response times will be reduced thanks to back-office technologies. (b) Increased efficiency of public activity. Digital technologies simplify and automate many administrative processes, thus reducing the time and resources needed to resolve requests. (c) Increased transparency of the institution's activity - the digitalization of administrative activity allows for increased transparency, as many processes can be viewed online without additional effort on the part of employees. For example, by accessing online portals, citizens can track the status of their requests, view public data on the activities of institutions, and receive up-to-date information on ongoing projects*." (1.1, 1.2, 1.3).
Respondent 9: ”Increased *efficiency through the automation of administrative processes; reduced costs through the reduction of physical resources (paper, archiving, storage); online access for citizens; reduced waiting times; reduced corruption; fewer human errors; interoperability between institutions*." (1.2, 1.4, 1.5, 1.6)
The results obtained are consistent with the research conducted by Popova et al. (2023), which highlights the benefits of implementing digital technologies in public administration, considering the modern experience of EU countries. The authors argue that it is necessary to ensure interaction between the components of the institutional system and its implementation and control mechanisms in order to enable the creation of an efficient network of relationships between all components of the system, both horizontally and vertically, as well as to increase the efficiency of the entire public administration system and the quality of services.

Adapting staff to digital transformation

The thematic analysis of RQ4 highlights six important themes. Increasing productivity and facilitating daily activities is the theme with the highest frequency of codes, with 15 codes assigned and an importance of 25.42%. (Table 5)

Table 5. Subthemes found for RQ4

No.	Subtheme	Number of coding references	Percent (%)
1.1	Increasing productivity and facilitating daily activities	15	25,42
1.2	Progressive acceptance of digital technologies	13	22,03
1.3	Staff reluctance	12	20,34
1.4	Advanced training and ongoing support	10	16,95
1.5	Initial training	7	11,86
1.6	Self-learning	2	3,39

Source: Authors, based on software NVivo

The gradual acceptance of digital technologies is the second theme, with 13 codes assigned and an importance of 22.03%. Staff reluctance is one of the themes identified by thematic analysis, with 12 codes assigned and an importance of 20.34%.

Respondent 2: "*The initial reaction was one of partial rejection of the use of digital technologies, probably due to a conservatism that existed within the institution. After a very short period of adaptation, digital tools became an integral part of the daily activities of the institution's staff, subsequently becoming essential for all activities related to the processes that were digitized*." (1.2, 1.3)

Respondent 14: "*The team was enthusiastic about solutions that simplified repetitive tasks, but some employees were initially reluctant. In the long run, the new technologies were perceived as real support*." (1.1, 1.3)

Another theme identified is Advanced training and ongoing support. Ten codes and an importance of 16.95% were identified for this theme. The adaptation period and the technical support provided to public servants have a significant impact on their capacity to adapt to the challenges of digital transformation in public administration.:

Respondent 15: "*The reaction varied depending on the level of digital skills. Most appreciated the positive impact on efficiency, and those with difficulties received ongoing technical support*." (1.4)

The successful implementation of digital transformation processes has the effect of increasing the supply of digital public services, transparency, and administrative efficiency, which depends largely on the public servants who design, manage, or use digital systems (Porrúa et al., 2021; Ahn & Chen, 2022).

Citizens' perception of digital transformation

The thematic analysis of RQ5 identified five important themes: positive feedback and benefits experienced by citizens, user perception by profile, need for additional assistance, suggestions for improvement, and difficulties encountered by citizens (Table 6).

Table 6. Subthemes found for RQ5

No.	Subtheme	Number of coding references	Percent (%)
1.1	Positive feedback and benefits felt by citizens	27	57,45
1.2	User perception by profile	8	17,02
1.3	Need for additional assistance	5	10,64
1.4	Suggestions for improvement	4	8,51
1.5	Difficulties encountered by citizens	3	6,38

Source: Authors, based on software NVivo

Positive feedback and benefits felt by citizens is the most important theme, with 27 codes assigned and an importance of 57.45%:

Respondent 13: "*Citizens particularly appreciated the ability to access services online, which saved them time and effort. Some suggestions focused on increasing accessibility for people less familiar with technology*." (1.1, 1.4)

Respondent 14: "*The feedback was positive, with an emphasis on the transparency and convenience of the new solutions. However, a segment of the population expressed a desire for more detailed support*." (1.1, 1.3)

The second most important theme is User perception by profile, with 8 codes assigned and an importance of 17.02%, as seen in Figures 5.26 and 5.31. The need for additional assistance, suggestions for improvement, and difficulties encountered by citizens are the next three themes identified, which are close to each other (the need for additional assistance with 5 codes and an importance of 10.64%, Suggestions for improvement with 4 codes and an importance of 8.51%, Difficulties encountered by citizens with 3 codes and an importance of 6.38%).

Concerns about digitalization in public administration and the impact of this process on citizens are reflected in the European Commission's strategies. In this regard, the European Commission (2016) proposes electronic services as a means of reducing bureaucracy, making interaction with the state more efficient and convenient for citizens.

Bernhard et al. (2018) investigate whether there is a relationship between the degree of digitalization in Swedish municipalities and perceived satisfaction among citizens. The results show that there is a direct relationship between the degree of digitalization in a municipality and citizen satisfaction. In addition, this study indicates that this relationship is also conditioned by other factors, such as the level of education and average income.

The future of digital transformation in local public administration

Seven relevant themes were identified from the thematic analysis related to RQ6. The main theme, with a frequency of 18 codes assigned and an importance of 21.69%, refers to the implementation of artificial intelligence (Table 7.).

Table 7. Subthemes found for RQ6

No.	Subtheme	Number of coding references	Percent (%)
1.1	Implementation of artificial intelligence	18	21,69
1.2	Integration and centralization of digital platforms	17	20,48
1.3	Solutions for accessibility and social inclusion	17	20,48
1.4	Automation of administrative processes and integration of systems	11	13,25
1.5	Digital identity and electronic authentication	9	10,84
1.6	Data protection and digital security	8	9,64
1.7	Adaptation to the legislative framework	3	3,61

Source: Authors, based on software Nvivo

According to respondents, the future of digital transformation in public administration involves integrating digital platforms and finding solutions to increase accessibility and social inclusion. This is supported by the two themes identified (Integration and centralization of digital platforms, Solutions for accessibility and social inclusion), both with a frequency of 17 codes assigned and an importance of 20.48%. Respondents highlight the benefits of these approaches, as supported by their responses:

Respondent 6: "*In the short and medium term, we plan to introduce AI technologies, specifically an AI chatbot that can provide coherent answers to questions asked by citizens, raising the level of information and at the same time relieving some of the employees who have to provide information either in person or by phone*." (1.1)

Respondent 2: "*The implementation and development of IT platforms for other segments and procedures within the institution, ensuring the integration of new developments with existing and functional platforms throughout this process*." (1.2).

Respondent 11: "*Upgrading IT systems in terms of hardware and the use of artificial intelligence services*." (1.1)

These findings are consistent with the literature that outlines the future of digital transformation in public administration and highlights the impact of artificial intelligence on this field (Agarwal, 2018; Van Noordt & Tangi, 2023). AI-based innovation has a profound impact not only on public sector employees, but also on citizens and society (Madan & Ashok, 2023).

Ethics and security in the digital transformation process

The thematic analysis related to RQ7 identifies six important themes. Compliance with the GDPR in accordance with legal regulations (frequency 23 codes and importance 37.70%) and Prevention of security breaches (frequency 10 codes and importance 16.39%) are the most dominant themes, followed by Increasing citizen trust (frequency 9 codes and importance 14.75%), Institutional responsibility (frequency 9 codes and importance 14.75%), Prevention of corruption and fraud (frequency 6 codes and importance 9.84%) and Improvement of the authentication process (frequency 4 codes and importance 6.56%) (Table 8).

Table 8. Subthemes found for RQ7

No.	Subtheme	Number of coding references	Percent (%)
1.1	Compliance with the GDPR in accordance with legal regulations	23	37,70
1.2	Prevention of security breaches	10	16,39
1.3	Increasing citizen trust	9	14,75
1.4	Institutional responsibility	9	14,75
1.5	Prevention of corruption and fraud	6	9,84
1.6	Improvement of the authentication process	4	6,56

Source: Authors, based on software NVivo

Compliance with the GDPR in accordance with legal regulations and the prevention of security breaches are the first two issues identified, together accounting for over 50% of the total. The following responses from respondents support the importance of these issues:

Respondent 6: "*The confidentiality of personal data is ensured by complying with the regulations in force, in particular the GDPR*." (1.1)

Respondent 7: "*Confidentiality issues are addressed by providing information on GDPR legislation*." (1.1)

Respondent 13: "*We comply with GDPR principles by collecting minimal data and obtaining the explicit consent of citizens for processing*." (1.1).

Studies show that achieving a high level of digital governance development is accompanied by a decrease in the level of corruption in the country and offers other advantages, such as the speed and quality of administrative service delivery and active citizen participation (Pakhnenko & Kuan, 2023). However, special attention is paid to the ethical concerns of digital technologies. Digital technologies are currently at an early stage of development, so it is difficult to fully assess the consequences of their impact on society (Mišić, 2021). A comprehensive review of the ethics of digital technologies in public administration is provided in the existing literature (Liywalii & Tembo, 2019; Muliawaty & Framesthi, 2020).

3.2 Sentiment analysis

The process of digital transformation in local public administration generates mixed reactions, reflecting, on the one hand, the benefits of its implementation and, on the other hand, the potential challenges encountered. Respondents' perceptions are divided between positive and negative attitudes, with a slight advantage for those in favor of change. Being the most common, positive attitudes indicate that digitalization is recognized as an important and necessary step that can increase the efficiency and accessibility of public services. However, although fewer, negative attitudes temper enthusiasm by highlighting some of the difficulties associated with the digitalization of public administration (Table 9). These problems do not necessarily reveal a rejection of the idea of digitalization, but highlight that this process can be difficult, with multiple obstacles such as reluctance to change, budget constraints, lack of sufficient time, etc.

Table 9. Sentiment analysis

RQ	Sentiment type			
	Very negative	**Moderately negative**	**Moderately positive**	**Very positive**
RQ1	5	10	12	4
RQ2	0	1	3	2
RQ3	0	4	9	10
RQ4	12	3	13	15
RQ5	1	1	11	6
RQ6	2	6	19	9
RQ7	3	13	7	5

Source: Authors, based on software NVivo

Similarly, extreme attitudes highlighted by strongly negative and strongly positive perceptions denote a balance between the implementation of digitalization and certain barriers that are very difficult to overcome. While strongly positive attitudes reveal cases where this process has been implemented easily, bringing substantial benefits to institutions and citizens alike, those with a strongly negative effect are associated with some dysfunctions that have either completely limited the implementation itself or hindered the process in the post-implementation stage. Therefore, although there is relative optimism, public administration must adopt certain adaptation measures to overcome technical and organizational challenges.

The RQ2 sentiment analysis reflects a predominance of positive emotional states (three codes assigned) and strongly positive emotional states (two codes assigned). The responses of the participants indicate a general appreciation of the integration of digital technologies. However, the code assigned to the negative effect emotional state indicates the existence of reservations or challenges related to the adoption of digital technologies. These attitudes may be motivated by certain technical

difficulties, high implementation costs, or a lack of the skills necessary to make optimal use of these solutions.

Most respondents believe that digital technologies bring clear and significant benefits to local public administration (RQ3). They recognize the benefits of new digital technologies, such as increased operational efficiency, process automation, and improved accessibility of public services.

Respondents may view digitalization as a necessary and beneficial process, while at the same time recognizing its difficulty of implementation. In any case, the significant number of positive sentiments (19) clearly indicates that many activities are made easier thanks to the multitude of advantages offered by digital technologies.

The process of adapting staff to digital transformation (RQ4) generates a wide range of reactions that highlight both positive emotions (15 codes attributed to the emotional state of strong positive effect, and 13 codes attributed to the emotional state of positive effect) and negative emotions (12 codes attributed to the emotional state of strong negative effect, and three codes attributed to the emotional state of negative effect). The predominance of positive attitudes indicates the respondents' perception of the good or relatively good adaptation of employees to digital transformations. However, the presence of a relatively large number of negative emotions suggests the existence of resistance to change and the emergence of difficulties in adaptation for some employees. Respondents recognize the benefits of digital technologies but feel they need time to learn and adapt. To transform these perceptions into positive ones, organizations could focus on staff training programs to reduce the impact of change, communicate the benefits of digital transformation more clearly, or constantly monitor employee feedback.

Citizens' perceptions of digital transformation (RQ5) are key to its successful implementation. A significant number of codes (11) were assigned to positive emotional states, which means that many citizens are open to the idea of digitalization and view it in a favorable light. However, although significantly fewer, the codes characterized by negative emotional states suggest citizens' difficulties and concerns regarding the use of new digital platforms. Many citizens do not yet have a clear opinion on digital transformation or have not experienced this process enough to feel a certain emotion. Therefore, this aspect can be interpreted as a transitional phase in which citizens are exposed to digitalization but need to interact more with the new functionalities to be able to take a clear position.

The digital transformation of public administration (RQ6) is perceived as an ongoing process, and perceptions about the future of this phenomenon are predominantly positive, but with some reservations. The multitude of codes assigned to positive emotional states suggests an optimistic view of the impact of the digitalization of public administration. Respondents perceive that, in the future, public administration processes will be strongly influenced by digitalization. However, the eight codes assigned to negative emotional states could suggest possible inequalities in access to digital services.

The multitude of negative feelings RQ7 (13 codes assigned) reveals that many respondents have concerns about ethics and digital security in public administration.

Potential risks related to personal data protection or cybersecurity are major concerns among respondents. Through positive attitudes (seven codes assigned) and strongly positive attitudes (five codes assigned), there are also respondents who recognize the progress made in the field of digital security. Moreover, digitalization could also be seen as an opportunity to increase trust in public administration.

4. Conclusions

The process of digital transformation in local public administration is a broad one, with major implications for operational efficiency, accessibility of public services, and institutional transparency. It is difficult to imagine any governance process that does not involve the extensive use of digital technologies. The rapid proliferation of digital technologies throughout society offers public administration the opportunity to develop processes transparently and efficiently. The present qualitative analysis allows us to identify the perception of public servants on digital transformation, as well as the challenges and opportunities associated with this process.

The research results highlight that the process of implementing digital technologies in public administration is influenced by a multitude of factors. Digital transformation brings significant benefits, such as reduced document processing time, transparency and efficiency in the provision of public services, reduced bureaucracy, and improved interaction with citizens, but it also generates challenges related to financial constraints and difficulties in adapting employees to new technologies.

In this analysis, we identified how public servants react when digital transformation takes place through the implementation of new technologies. Some of them were very open and enthusiastic about the new applications, while others faced difficulties in adapting, resulting in the need to implement training sessions and technical support to ensure an effective transition.

From the perspective of citizens, the direct beneficiaries, digitalization is generally viewed positively, as it improves the efficiency and accessibility of public services. Even so, some users, especially those less familiar with technology, have encountered difficulties in using the platforms of public institutions. The need to initiate digital education and/or technical support programs for citizens is necessary to achieve good results with digital platforms.

Artificial intelligence and digital identity are basic elements for the automation and integration of advanced technologies, which is the direction that digital transformation in public administration will take. Respondents, being specialists and directly involved, noted the importance of interconnecting the digital systems of public institutions as well as data security. All of this will increase the efficiency of administrative processes and reduce information fragmentation. At the same time, according to this study, ethics and digital security are major concerns regarding cybersecurity, compliance with GDPR regulations, and the prevention of security breaches. Increased transparency will increase citizens' trust in the digital services offered by public administration.

Digital transformation is an inevitable process, and local public administration needs a well-defined strategy. The success of this process is directly linked to the investments made and the ability of institutions to adapt technologies to the specific needs of citizens and employees.

Theoretical and practical contributions

From a theoretical point of view, the paper is part of the literature dedicated to the digital transformation of public administration, going beyond the fragmented approaches frequently encountered in existing studies and proposing a unified vision of how managerial mechanisms, participatory governance factors, and smart technologies can interact to support digital transformation.

The paper also makes an important practical contribution by identifying major barriers to digitalization, from the lack of interoperability and fragmentation of IT systems to digital skills gaps, and by formulating concrete solutions to overcome them. In addition, the emphasis on citizen involvement and the creation of a participatory governance framework ensures the relevance of the proposed strategies in a democratic and community-oriented context.

Limitations and directions for future research

Although designed to cover the diversity of situations encountered in local public administration in Romania, the qualitative research was conducted on a relatively small and selective sample, based on the availability and openness of the participants to dialogue. While the responses obtained have a high interpretative value and have allowed for the nuance of statistical results, they do not fully capture the variations determined by cultural, economic, or administrative differences between all types of administrative-territorial units.

The complexity of the digital transformation phenomenon makes it difficult to completely isolate the variables analyzed. Digitalization is a multidimensional and interdependent process, simultaneously influenced by political, economic, social, cultural and technological factors. The interaction of these factors can produce indirect or synergistic effects, difficult to quantify within a standard research design.

Starting from these limitations, we can outline as a future research direction the deepening of qualitative research by conducting longitudinal studies, which would follow the evolution of the digitalization process and the impact of the implemented reforms over time. Such an approach could highlight not only technological or procedural changes, but also the dynamics of changes in staff attitudes and the degree of citizen involvement.

Conflict of Interest Statement

The author declares that the research was conducted without any commercial or financial relationships that could be construed as a potential conflict of interest.

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