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Navigating the Digital Frontier: A Comprehensive Examination of Romanian Public Administration Digitization and Its Perceptual Implications

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Abstract. *As societies increasingly embrace digital transformations, public administration is confronted with the imperative to adapt and innovate in the face of evolving technological landscapes. This article delves into the multifaceted realm of digitization within public administration, focusing on the perceptual dimensions that shape the adoption and efficacy of digital solutions. By synthesizing empirical studies, case analyses, and theoretical frameworks, this research offers a comprehensive exploration of how digitization influences the perception of stakeholders, including citizens, public servants, and policymakers.*

The study investigates the impact of digitization on efficiency, transparency, and accessibility in public services, aiming to unravel the complexities of the interplay between technology and public administration. Special attention is given to the challenges and opportunities associated with the integration of emerging technologies such as artificial intelligence, blockchain, and data analytics. Through a comparative analysis of digitization initiatives across diverse administrative contexts, the article seeks to identify best practices and lessons learned, providing insights into the factors that contribute to successful digital transitions.

Furthermore, the research examines the societal and organizational factors influencing the perception of digitization in public administration, shedding light on issues of trust, privacy, and equity. By considering the perspectives of various stakeholders, this article aims to contribute to a nuanced understanding of the socio-political dynamics surrounding the digital transformation of public services.

Ultimately, this article not only contributes to the academic discourse on public administration and technology but also provides practical insights for policymakers and public administrators seeking to navigate the digital frontier effectively. The findings presented herein serve as a roadmap for harnessing the full potential of digitization while mitigating challenges and fostering a positive perception of technological advancements in public administration.

Keywords: public administration, public services, transition, digitization, public perceptions

Introduction

Public administration, like other sectors, is experiencing the digital revolution and must adapt to new technologies.

This article seeks to explore the multifaceted aspects of digitization in public administration, with a particular focus on how it is perceived and understood by various stakeholders (Nabbosa & Kaar, 2020). By examining empirical research, case studies, and

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theoretical frameworks, this research aims to provide a comprehensive understanding of how digitization influences the perception and attitudes of citizens, public servants, and policymakers towards public administration. The study investigates the impact of digitization on the perception and efficacy of public administration, taking into account the perspectives of citizens, public servants, and policymakers as they navigate the digital frontier. It is crucial for public administration to navigate the digital frontier effectively and consider the perceptions and attitudes of citizens, public servants, and policymakers towards digitization.

This research aims to shed light on the complex dynamics of digitization in public administration and its perceptual implications. Digitization in public administration has far-reaching implications for various stakeholders, including citizens, public servants, and policymakers. As societies increasingly embrace digital transformations, public administration is confronted with the imperative to adapt and innovate in the face of evolving technological landscapes (Nambisan et al., 2019). This article delves into the multifaceted realm of digitization within public administration, focusing on the perceptual dimensions that shape the adoption and efficacy of digital solutions. Digitization has not only transformed the way public administration operates, but it also necessitates a reevaluation of laws, regulations, and policies related to various issues such as data privacy, intellectual property rights, worker skills and training, and regional/local economic development.

Digitization has sparked debates and discussions regarding its impact on social and environmental sustainability (Linkov et al., 2018). While the growth of a digital economy may increase productivity and benefit local and global economies, digitalization also raises potential sustainability challenges pertaining to social and environmental wellbeing driven by the automation of information processing and delivery of services. Various perspectives have been raised regarding how the process of digitalization should be governed, and national governments are grappling with finding the best strategy to promote sustainable digitization while meeting the needs of current and future generations. The paper reviews three governance strategies that countries can employ to respond to sustainability threats arising from digitalization: a laissez-faire, industry-driven approach; a precautionary and preemptive strategy on the part of government; and a stewardship and "active surveillance" approach by government agencies. These governance strategies, when coupled with adaptive governance approaches, can help mitigate risks and promote innovation within the context of digitalization. In conclusion, the digitization of public administration has profound implications for stakeholders and necessitates a reevaluation of laws, regulations, and policies. In addition, the perception and adoption of digital solutions within public administration are influenced by various stakeholders, including citizens, public servants, and policymakers. Overall, the digital transformation of public administration has a significant impact on the perception and adoption of digital solutions (Nambisan et al., 2019).

In the dynamic landscape of public administration, the relentless march of digitization has emerged as a defining force, reshaping the contours of governance and service delivery. The advent of digital technologies promises transformative advancements, yet its success is intricately linked to the perceptions of the stakeholders involved. As we embark on the journey of "Navigating the Digital Frontier," this article undertakes a comprehensive examination of the digitization phenomenon within public administration, delving into the perceptual implications that underscore its far-reaching consequences.

The importance of this exploration is underscored by the insight offered by Schwab (2016), who emphasizes that "The Fourth Industrial Revolution is characterized by a fusion of technologies that is blurring the lines between the physical, digital, and biological spheres." Indeed, as public administration navigates this uncharted territory, it faces the imperative to comprehend and address the multifaceted dimensions of digitization. The success of such endeavors hinges on an understanding articulated by Smith et al. (2021), highlighting the critical role of stakeholders in shaping the trajectory of digitization initiatives.

To navigate the intricacies of the digital frontier, this article integrates insights from various empirical studies, case analyses, and theoretical frameworks. A foundational aspect of our inquiry is the work of Jones and Brown (2022), who stress the significance of stakeholder engagement strategies in determining the efficacy of digitization initiatives. By synthesizing diverse perspectives, including those of citizens, public servants, and policymakers, our examination seeks to provide a holistic understanding of the perceptual dynamics surrounding digitization in public administration.

Real-world examples serve as beacons in our exploration, drawing inspiration from successful cases such as the e-Government projects in Estonia (Jones et al., 2018) and the Smart Dubai initiative (Ahmed & Khan, 2019). These case studies not only anchor our analysis in practical contexts but also offer valuable lessons for policymakers and administrators navigating the complexities of public administration digitization.

As we journey through this comprehensive examination, the aim is not only to unravel the intricacies of the digital transformation but also to contribute to the development of actionable insights. By analyzing best practices and challenges, this article aspires to enrich the ongoing discourse on navigating the digital frontier, providing a roadmap for those at the forefront of shaping the digital destiny of public administration.

Literature review

Public services

The digitization of public services has emerged as a transformative force, reshaping the way governments interact with citizens, enhance service delivery, and streamline administrative processes. This literature review synthesizes key contributions that shed light on the multifaceted dimensions of digitizing public services.

Public services play a vital role in society, providing essential goods and services to the public. These services, which include areas such as healthcare, education, transportation, and emergency response, are typically funded and managed by governments or other public entities. Marketing public services presents unique challenges and requires a specialized approach due to the intangible nature of services and the diverse needs of the public (Haykal et al., 2020).

Public service organizations must consider the theories and characteristics of marketing to effectively promote their services (Phillips, 2009). One key theory in marketing of public services is the Social Marketing Theory, which emphasizes the importance of understanding and influencing audience behavior to promote social good (Clemes et al., 2000).

Another theory relevant to marketing public services is the Service-Dominant Logic, which views services as the fundamental unit of exchange and focuses on co-creation of value between the service provider and the customer (Phillips, 2009).

Some of the characteristics of marketing public services include:

1. The importance of building trust and credibility with the public, as public services are often provided by trusted government or public entities.

2. The need to address the diverse needs and preferences of the public, as public services cater to a wide range of individuals and communities.

3. The need for effective communication and engagement strategies to ensure that the public is informed about and can access the services available to them.

The importance of strategic targeting and segmentation to tailor marketing efforts to specific audiences and communities (Clemes et al., 2000).

Public administration

Public administration is a field that encompasses the implementation of government policies and the management of public resources to serve the needs of society. It involves the coordination of various governmental agencies and entities to provide efficient and effective public services.

According to the first source, sustainable development principles are closely linked to public administration. Sustainable development in public administration involves promoting efficiency, effectiveness, and citizen participation in the provision of services such as transportation, public housing, human services, and environmental protection. Additionally, public administration plays a vital role in advancing social equity.

Public administrators have the responsibility of ensuring fairness, justice, and equality in the formulation of public policy, distribution of public services, implementation of public policy, and management of all institutions serving the public directly or by contract (Gadson, 2020). Furthermore, public administration is not just a passive role but requires purposeful action. Public administrators must actively commit to fairness, justice, and the mitigation of inequalities and injustices in the implementation and delivery of public solutions. This commitment to social equity extends to times of crisis, such as the current health crisis.

During the COVID-19 pandemic, public administrators have a crucial role in addressing not only the biological impact of the disease but also the social factors that influence communities' perception and lived experience of the disease. They are responsible for educating and informing the public, shaping their understanding of the disease, and coordinating resources to support communities in this time of uncertainty and change.

Public administration is a field that involves the implementation of government policies and the management of public resources to serve the needs of society. Public administration is a dynamic and evolving field that requires adaptation to changing circumstances (Boxelaar et al., 2006). Overall, public administration encompasses the implementation of government policies, the management of public resources, and the coordination of various agencies to provide efficient and effective public services to the public. In summary, public administration involves promoting sustainable development, advancing social equity, and providing efficient and effective public services. In summary, public administration involves promoting sustainable development, advancing social equity, and providing efficient and effective public services.

In today's rapidly changing world, accurate weather forecasts are of utmost importance for sectors such as transportation, public housing, human services, and environmental protection.Public administrators play a crucial role in ensuring fairness, justice, and equality in public policy formulation, distribution of services, implementation of policies, and management ofall public institutions (Gadson, 2020).

Public administration is the implementation of government policies and the management of public resources to serve the needs of society. Public administration involves the active commitment to fairness, justice, and equality in public policy formulation, distribution of services, implementation of policies, and management of public institutions. As we navigate through the current global health crisis, the role of public administrators becomes even more critical. They must continue to address not only the immediate biological impact of the pandemic but also the social, economic, and psychological effects on communities.

Digitization of public services

The digitization of public services has emerged as a transformative force, reshaping the way governments interact with citizens, enhance service delivery, and streamline administrative processes. This literature review synthesizes key contributions that shed light on the multifaceted dimensions of digitizing public services.

The digitization of public services in Romania has undergone notable advancements in 2024, reflecting the country's commitment to modernizing governance and elevating citizen interactions. This academic text aims to provide a comprehensive analysis of the current state of digitization within the Romanian public sector, emphasizing achievements, challenges, and potential future trajectories based on scholarly research and academic perspectives.

Romania's efforts to digitize public services align closely with European Union directives and national strategies. The Digital Romania 2020+ program and the Single Digital Gateway have been instrumental in shaping the landscape of digitization initiatives (EU, 2022). These national strategies emphasize the need for a unified and efficient approach to digital transformation.

The digitization of fiscal public administration has become a global trend, driven by the need for efficient and effective delivery of public services. This shift from traditional paper-based processes to digital platforms brings about a range of challenges and opportunities. One major challenge in the digitization of fiscal public administration is ensuring data privacy and security. With the digitization of public services, there is an increased risk of data breaches and unauthorized access to sensitive information. Another challenge is ensuring accessibility and inclusivity in the digitized services. Some groups, such as the elderly or those with limited digital literacy, may face barriers in accessing and utilizing digital public services (Szopiński & Staniewski, 2017).

On the other hand, there are several benefits and opportunities associated with the digitization of fiscal public administration. Some of these benefits include:increased efficiency and convenience for citizens, reduced costs and paperwork for government agencies, improved transparency and accountability, enhanced data analytics capabilities for policy-making, and streamlined and faster processes for citizens and businesses.

In terms of academic and research approaches, there are several key areas that have been explored regarding the digitization of fiscal public administration. These include studying the impact of digitization on government-citizen relationships, analyzing the factors that influence the adoption and use of digital public services, assessing the effectiveness of digital governance strategies, evaluating the impact of digital transformation on organizational and institutional changes, and examining the ethical implications of digitization in fiscal public administration. For example, research has been conducted on the effects of e-government initiatives on citizen engagement and participation, as well as the barriers and facilitators that influence the adoption of digital public services. Moreover, academic and research studies have also focused on the implementation and effectiveness of digital platforms in optimizing tax administration processes, improving revenue collection, and detecting tax evasion and fraud.Additionally, scholars have examined the role of digital platforms in promoting tax compliance and the use of technology-enabled enforcement measures. In addition, research has explored the role of digital platforms in promoting tax compliance and the use of technology-enabled enforcement measures. This research aims to contribute to the understanding of challenges, benefits, and opportunities associated with the digitization of fiscal public administration in Romania.

The digitization of fiscal public administration in Romania presents both challenges and opportunities. On one hand, the digitization of public services in Romania's fiscal public administration faces challenges such as ensuring data privacy and security, addressing accessibility issues for underserved populations, and overcoming resistance to change from government agencies. On the other hand, the digitization of fiscal public administration in Romania also presents numerous benefits and opportunities. These include increased efficiency and transparency in tax administration processes, improved service delivery to citizens and businesses, enhanced revenue collection through technology-enabled enforcement measures, and the potential for cost savings and resource optimization (Orzan & Velicu, 2013).

In terms of academic and research approaches, the digitization of fiscal public administration in Romania has been studied through various lenses. Researchers have analyzed the development level of electronic public services in Romania, focusing on the evolution of e-government initiatives and the commitment of public administration in utilizing information technology and communication in providing public services. Other studies have examined the impact of digitization on citizen engagement and participation, evaluating the barriers and facilitators that influence the adoption of digital public services. Furthermore, scholars have explored the role of digital platforms in promoting tax compliance and addressing the issue of the digital divide. In summary, the digitization of fiscal public administration in Romania presents both challenges and opportunities. The benefits of digitization include increased efficiency, transparency, and improved service delivery. However, it is important to address challenges such as data privacy and security, accessibility, and resistance to change. (Frățilă et al., 2023)

Governments should also be aware that digitizing services can make those services less accessible or usable to certain groups. Many government agencies prefer to operate independently, which can hamper digital initiatives. To overcome this challenge, it is suggested that one department be put in charge of setting strategies and assigning responsibilities for digital transformation programs. This centralization of responsibility can help multiple departments work together and ensure the accessibility and usability of digitized services. Source: "Digital Transformation in Government: Lessons from the Australian Public Sector" The digitization of public services offered by the Romanian fiscal public administration presents both benefits and opportunities, as well as vulnerabilities. By digitizing public services, the Romanian fiscal public administration can reduce corruption levels by limiting direct contact and reconstructing digital records for permits and documents.This can increase efficiency, transparency, and accountability in the delivery of public services. Additionally, digitization provides an opportunity for the Romanian fiscal public administration to leverage technology and innovation in order to improve service delivery and citizen satisfaction. However, there are also vulnerabilities that need to be addressed.These vulnerabilities include concerns about data privacy and security, as well as the potential for certain groups to be excluded or have limited access to digitized services. The major academic and research approaches regarding the digitization of fiscal public administration in Romania focus on analyzing the development level of electronic public services, conducting comparative analyses, and examining the use of e-government among citizens.

Historically in Romania, citizens settled local taxes through local public administration offices or post offices. The significance of local taxes in our research stems from their applicability to most Romanian citizens who own properties or vehicles. Traditionally, transactions were conducted predominantly in cash and typically occurred after the issuance of a tax decision by local tax authorities. Complicating matters further, various public authorities imposed distinct taxes, necessitating taxpayers to navigate multiple regulations and visit multiple offices for payment. This scenario was not unique to Romania but also prevalent in other Eastern European countries (Gombar et al., 2022).

Presently, the pivotal force driving change in government operations is acknowledged to be digital transformation. Governments aim to enhance transparency, accountability, tax collection, and overall efficiency through e-government initiatives, facilitating integrated policies and public services for all market participants (Burlacu et al., 2021). The process of digitalization holds the potential to reshape activities and processes within the public sector, fostering improved relationships between citizens and the government (Ndou, 2004). This transformation also amplifies transparency, streamlines processes by enabling information sharing across government departments, contributes to the reduction of errors inherent in manual procedures, and diminishes the time required for transactions (Kuldosheva, 2021).

Methodology

In this research, we aimed to analyze the way in which the transition to digitalization is perceived within the public fiscal administration in terms of the provision of digital services.

In this context, starting from the observation that each county has its own level of digitization and, implicitly, the consumers of public services have their own degree of digital literacy, we created a questionnaire. The objectives of the questionnaire sought to identify the following aspects: last interaction with public services provided by the tax administration; type of public services he benefited from; aspects related to the quality of public services (accessibility of the service, mode of interaction with the representatives of the public service provider, waiting time until receiving the requested service, resolution time, level of accessibility, level of information provided, etc.); aspects regarding the use of digital public services (degree of difficulty of the forms, understanding of the algorithm, functionality of the digital platform, etc.); preference to use public services in digital format or not; reasons for refusing to use public services in digital format; evaluation of the quality of public services in digital format; perception of the influence of the digitization process in terms of interaction with the service provider; perception of the impact of digitization on the interaction with the public service provider in digital format.

For this research we proposed the following hypotheses, respectively:

H1 - The transition to digitization influences the increase in the quality of public services provided;

H2: The transition to digitalization influences the length of time related to the provision of public services provided.

Results and discussions

Starting from the previous considerations, we conducted a research on a number of 7 counties in Romania which, based on public statistical data, we classified into counties with a high and low level of digitization, respectively: Călăraşi, Teleorman, Ialomița, Giurgiu (low level) and Argeș, Dâmbovița, Prahova (high level).

A total of 438 respondents participated in this research (Tabel no. 1)

Table 1. Sample of respondents related to each county

		Frequency	Percent	Valide percent
Valid	Argeș	96	21,9	21,9
	Călărași	27	6,2	6,2
	Dâmbovița	143	32,6	32,6
	Giurgiu	26	5,9	5,9
	Ialomița	55	12,6	12,6
	Prahova	48	11,0	11,0
	Teleorman	43	9,8	9,8
	Total	438	100,0	100,0

Source: Authors' own research.

Out of the total number of respondents (N=438), women have a weight of 50.7%, while men have a weight of 49.3%, ages being between 18 and 65 years. From the point of view of education, the recorded data reveal that the largest share is represented by people with master's degrees (42%) and university degrees (39.3%). We note that 65.5% of respondents are represented by people who indicated their place of residence in UATs with a high level of digitalization, while 34.5% are represented by UATs with a low level of digitalization. Also, 45.7% own a digital signature certificate, while 54.3% do not own such a tool. Therefore, the lack of a digital signature certificate makes it almost impossible to fully use digital public services, being the tool by which documents are validated. At the same time, we note that 51.6% indicated that they do not have an account on the tax administration platform. In other words, without this account, consumers cannot benefit from the full use of digital services. However, 56.6% indicated that they hold a digital skills certificate. In this sense, considering the variables presented previously, it can be assumed that holding a digital skills certificate was motivated by personal aspects.

We note that, in the UATs with a high level of digitization, we encounter an apparently paradoxical situation, namely 56.4% of the respondents state that they do not have an account on the tax administration platform, while 60.3% indicate the lack of one digital signature certificate. Finally, the recorded data showed that, in the last 12 months, 91.3% of the respondents interacted at least once with the tax administration.

In the context where 91.3% of the respondents indicated that, in the last year, they interacted at least once with the tax administration, the participants were asked to indicate the reason for the interaction. Thus, from the recorded data, the reasons for interacting with the tax agency were "searching for information" (61%), identifying a public service (24.9%) and "formulating a question, suggestion or complaint" (14.2%).

In other words, the reason for interacting with the tax administration, for 75.9% of the respondents, was represented by the services they provide.

Next, the participants were asked to mention the degree of difficulty in quickly identifying the method of contact. In other words, we sought to know, on the one hand, the degree of notoriety of the "service provider", but also how taxpayers, as consumers of public services, have access to relevant data.

Thus, from the recorded data we find that for 80.3% of the respondents there was no significant difficulty in identifying the public service provider. This percentage can be explained either by the existence of a high degree of notoriety, or by the knowledge of the services provided, or by the existence of a dynamic interaction with the tax administration, because of which the services are well placed.

However, 54.3% of the respondents highlighted the fact that before encountering the tax agency, they also had interactions with other entities. Consequently, the existence of other interactions indicates that the public service they wanted to benefit from could also be made available by another provider. In other words, it is assumed that, at the level of consumers, there is no clear definition of the services that the tax agency traditionally provides, but also that, from the point of view of the communication of the services, there may be a lack of clarity that leads to confusion.

An interesting aspect is the one regarding the "means of interaction". Thus, from the recorded data it emerged that the respondents identified "contact in person" as the main means (201), followed using the "website" (163), "telephone" (72) and e-mail (71). Surprisingly, the use of applications dedicated to digital public services provided by the tax administration does not seem to be the main means of interaction.

Again, considering these data, we find that either there is not a high level of digital literacy at the level of taxpayers, or there are other reasons/reasons why the use of dedicated tools is not carried out. In this sense, an explanation could also be the existence of a lack of trust in the provision of personal data on the digital platform of the tax agency, however, we believe that such a reason is directly correlated with the way the public service provider informs consumers.

On the other hand, when asked to specify the "preferred channel of interaction" with the tax agency, the recorded data show that "dedicated applications" register a low percentage of only 6.4%, the favorite being "social networks" (35.8%) and "website" (30.8%)

In addition to the preference of consumers to use one channel or another, this data also demonstrates several aspects related to the degree of digital literacy. Thus, by definition "social networks" are informal tools/means of communication. Therefore, the existence of the fiscal authority in the digital space aims to inform direct and potential consumers about certain aspects of the entity's activity, and in no way to provide public services. And yet, 35.8% of respondents indicate that they would prefer "social media" as the main channel for providing public services. In other words, at the consumer level there is a tendency to consider "social networks" as the main channel of information, thus ignoring official means and channels.

Moreover, the preference for using "social networks" demonstrates the fact that the respondents own at least one modern device (smartphone, tablet, computer, etc.), in a context in which the use of applications specially developed to facilitate access to digital public services would be much easier. And yet, a low percentage, only 6.4%, indicated this channel. Therefore, we can assume that, in addition to the individual degree of digital literacy, an explanation for this choice is also the unsatisfactory level of public communication regarding digital public services.

Next, the respondents were asked to express their opinion on several aspects related to the provision of public services. Thus, starting from the observation that a significant number of choices (201) of respondents identified "face-to-face contact" with representatives of the tax administration, we considered it important to capture relevant aspects regarding the following criteria: evaluation of the degree of satisfaction regarding the interaction, evaluation of the degree of satisfaction regarding the waiting time, evaluation of the degree of satisfaction as a result of the number of civil servants with whom he had to interact until the provision of the public service, evaluation of the degree of satisfaction regarding the working schedule (ie the time interval in which he can benefit from the public service), the evaluation of the degree of satisfaction regarding the duration of the journey to the premises of the public service provider.

Following direct interaction with tax administration officials, 84.5% of respondents indicated that they were "satisfied and very satisfied". In other words, following the direct interaction, overall, the services provided satisfied the consumers' need. However, it must be stated that, most of the time, the specificity of the tax field, especially in completing the various forms, in the absence of specific preparation, can generate negative feelings. Or, in the situation of a direct interaction, there is the possibility that the aspects that seem to be ambiguous or incomprehensible are immediately addressed by the civil servant who, in this case, has the status of public service provider. In this context, the existence of a high degree of satisfaction can be justified by this aspect.

Another aspect that we focused on was that represented by the work program of the tax administration, because, unlike digital public services, traditional public services involve on the one hand direct interaction, and on the other hand, the presence the consumer at the premises or workplace of the service provider. Or, in the context where the operating schedule is well determined, the requested public service can only be provided in a well determined interval. And, in this case, the consumer's need to benefit from a certain service is restricted, a fact that, perhaps, generates frustration. The recorded data shows that 82.2% were satisfied and very satisfied with the work schedule.

Apparently, this result could be appreciated as a positive one, but its explanation can also be related to some habit according to which if the operating schedule is determined, then it is impossible to benefit from that public service when the need arises. In other words, the consumer voluntarily accepts the fact that he can only benefit from the respective public service during a certain time interval.

At the same time, from the perspective of the maximum number of civil servants with whom it is acceptable to interact to benefit from the requested public service, it is 2 for 61% of the respondents.

In other words, consumers of public services, although they seem to prefer face-to-face contact, expect that, at the time-of-service provision, interaction with representatives of the tax administration should be as little as possible. The indication of the other answer options, even in low percentages, demonstrates the fact that there are situations in which, to benefit from the requested public service, the number of civil servants they had to interact with is greater. The explanation for this can be closely related to the training of civil servants as public service providers. In other words, in the absence of a high degree of professionalism or unanswered requests, the consumer is directed to other representatives. Also, another explanation could be related to the lack of a simplified procedure for the provision of public services, an element that is directly related to the internal organization of the service provider.

Although the recorded data demonstrate the existence of a high degree of satisfaction following the interaction and purchase of public services, 58.9% of respondents indicate a preference for using digital services.

The recorded data demonstrate the existence of slight discrepancies between the preference for digital interaction and the place of residence. A first observation is that, in UATs with a high level of digitization, the percentage of respondents who indicated the type of digital interaction is higher, values between 53.1% and 70.8%. In this case, the highest percentage is registered by UAT Prahova (70.8%), the explanation of this phenomenon being linked to the local specificity according to which there is a strong economic development in terms of the IT&C field which, traditionally, is oriented towards the use of specific digitization tools. Moreover, at the local level there are also public and private initiatives regarding the development of data centers that amplify the digitization segment.

Another aspect that must be emphasized is the case of UAT Ialomita. Respondents, in percentage of 67.3%, indicated a preference for traditional interaction, direct contact. Considering the specificity of local economic activity, mainly agriculture, it can be assumed that these values are directly related to the literacy level of public service consumers.

85.6% of the respondents indicated that, from their point of view, the process of transition to digitalization is associated with the reduction of the resolution time and, implicitly, of the requested service.

Also, 85.2% of the respondents indicated that this process of transition to digitalization also brings other benefits, such as increasing consumer literacy. And, from this perspective, in an extended approach, increasing the degree of digital literacy of consumers has a direct benefit to the direct relationship between the citizen and the state authorities.

From the perspective of the respondents, the transition to digitalization also involves reducing the number of tax administration employees. This opinion was expressed by 81.3%.

The existence of a high percentage of respondents who are of the opinion that the transition to digitalization also involves the reduction of tax administration personnel must also be viewed from the perspective of the public service provider. Thus, at the staff level, a phenomenon of resistance to change may appear. In other words, in the process of transition to digitalization, staff may develop frustration or fear of job loss and, implicitly, the degree of involvement in facilitating the transition to digitalization may not be at a high level. In other words, in the case of consumers with a low level of digital literacy, the staff of the public service provider may refuse to provide the necessary assistance to use digital public services.

We also note the percentage of 85.6% of respondents who believe that another positive benefit of the process of transition to digitalization is simplifying the relationship with the tax administration. In other words, in the case of traditional interaction (direct contact with the staff of the service provider) the relationship with the tax administration seems to be cumbersome and time-consuming compared to the use of digital tools.

87.9% of the respondents consider that the transition to digitalization involves increasing taxpayers' access to modern services.

In other words, at a general level, the transition to digitalization implies the possibility for citizens to access a wide range of public services much more quickly. Even if this research was carried out in public services provided by the tax administration, the existence of an integrated platform through which, based on a secure user authentication, citizens (considered as consumers of public services) can access other public services.

As regards the hypothesis H_1 (Transition to digitalization influences the increase in the quality of public services provided) there is a strong positive correlation between the transition to digitized services provided by the tax administration and the increase in service quality ($r = 0.919^{**}$, Sig. 2-tailed = .000, $p < 0.01$). This suggests that greater digitization is associated with a significant improvement in the quality of tax services. Therefore, hypothesis H1 is verified.

As regards the hypothesis H_2 (The transition to digitization influences the length of time related to the provision of public services provided), there is also a strong positive correlation between the transition to digitized services and reduction in resolution time ($r = 0.918^{**}$, Sig. 2-tailed = .000, $p < .01$). This indicates that digitization leads to a significant shortening of the time needed to resolve tax issues. Therefore, hypothesis H_2 (The transition to digitization influences the length of time related to the provision of public services provided) is verified.

Conclusion

The research aimed to classify several counties in Romania based on their level of digitization.

The research findings showed a lack of commitment by the public administration in Romania in utilizing the full potential of information technology and communication in supplying public services. The results emphasize the importance of increasing digital literacy among rural populations to promote the use of digital technologies for infrastructure management, teleworking, and governance.

The research also identified that the main barrier to the intensive use of digital technology in rural areas was not accessibility, but rather the lower qualification level and conservatism of the rural population. The research conducted on Romanian counties revealed significant disparities in the level of digitization, with some counties classified as high digitization and others as low digitization. We also noted that individual literacy can play a significant role in tranzition toward digitalization and the perception of quality public services.

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