



EU experience in the digital transformation of administrative services

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Abstract. The EU's experience in the digital transformation of administrative services is important because it demonstrates effective approaches to increasing transparency and efficiency of public administration. Studying European practices helps improve digital services in other countries seeking to modernise their administrative systems, including Ukraine. The purpose of the study is to analyse and summarise the EU experience in implementing digital technologies in the field of administration, highlighting successful practices, challenges and opportunities for further development. The case study method, which examines particular instances of successful implementation of digital projects in the field of administrative services in various EU countries, highlighting success factors and challenges, and general scientific methods of analysis and synthesis are used in the research methodology. Such a comprehensive study can be an important contribution to understanding the processes of digital transformation in the administrative sector. Based on the results, the following recommendations are made for the use of the EU experience in Ukraine. Expanding administrative service delivery in Ukraine with the support of the European Union may include a number of initiatives and measures aimed at modernising and effectively using digital technologies. The main areas of EU support for the modernisation and effective use of digital technologies in Ukraine include the following: development of e-governance; development of a network of administrative service centers; further development of electronic identification; improvement of digital literacy; cooperation with European partners. In 2024, administrative services are viewed from the perspective of establishing communication between the government and society, where a number of factors are key to success, including the number of requests, the format of requests, response time, relevance, etc. These initiatives are aimed at improving the quality and accessibility of administrative services in Ukraine with the support of the EU and can contribute to improving the efficiency of public administration and meeting the needs of citizens and businesses. The practical value of this study is the possibility of improving public administration in Ukraine through the introduction of effective digital technologies and improving the quality of administrative services based on the EU experience. This will also help to increase the digital literacy of the population, strengthen cooperation with the EU, and create more convenient services for citizens and businesses, which will improve the economic climate in the country

Keywords: European experience; public administration; e-governance; electronic identification; administrative service centers; modernisation

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Introduction

The EU's experience in transforming administrative services through digital innovation is of great importance, as it offers successful strategies for improving the operation of government agencies and ensuring their efficiency. Analysing these practices is becoming an important tool for countries seeking to modernise their administrative systems, including Ukraine. The European Union has extensive experience in the digital transformation of administrative services. This initiative focuses on enhancing the accessibility, efficiency, and convenience of public services for both citizens and businesses. Key aspects of this transformation in the EU include the use of electronic identifiers and electronic signatures (EU is actively developing infrastructure for electronic identification of citizens and businesses. For example, many EU countries have introduced electronic ID cards that can be used to access various public services); electronic public service platforms (many EU countries have created special platforms where citizens and businesses can access various administrative services in one place. This facilitates the process of applying to government agencies); electronic submission of documents (a large number of documents and applications can be submitted electronically, which saves time and effort for citizens and businesses. This applies, for example, to tax applications, applications for social benefits, and other administrative procedures); digital process automation (some EU countries are implementing artificial intelligence and automation systems to process documents and decisions in administrative procedures. This helps reduce administrative burdens and increases the speed of service delivery); data protection and cybersecurity (EU pays great attention to the protection of citizens' personal data in the digital environment. Regulation such as the General Data Protection Regulation (GDPR) ensures a high standard of data protection across the Union); expanding accessibility (digital transformation also aims to ensure that public services are accessible to all groups, including people with disabilities and other vulnerable groups); international cooperation (EU cooperates with other countries and international organisations to share best practices in digital administration and create standards).

Overall, the modernisation of administrative services through digital technology in the EU is an important policy element to make life easier for citizens and create a more efficient and innovative public administration. The measures taken by EU countries can serve as an example for other regions in the world (including Ukraine) that are also interested in improving administrative services through digital technologies.

The analysis of the research theoretical basis showed that the issue of using digital services to improve public administration has been studied at a sufficient level. Scientists study this issue both in specific countries.

In 2021, Z. Patergiannaki & Ya. Pollalis (2021) analyse the European Commission's steps towards e-government at the national and European levels and compare the level of development of this area in Greece. According to the authors, the Greek government is lagging behind in accomplishing several objectives related to digital transformation (transparency, cross-border mobility, and critical variables). Greece's rates of digitalisation and penetration are therefore much lower than the EU average. In 2024, the same authors continue to study the peculiarities of the digitisation of public service delivery in Greece. Using technology acceptance mode (TAM) and cognitive theory, the researchers in this work investigate the quality of e-government services from the viewpoint of residents in 50 Greek municipalities. The authors contend that closing the digital divide fosters fair service delivery and citizen participation, and that doing away with demographic disparities guarantees inclusive e-government systems (Patergiannaki & Pollalis, 2024).

A. Simon *et al.* (2023) analyse the development of public administration in Montenegro. The authors contend that while the majority of the population can rely on assistive technology for communication, the nation's digital literacy is still in its infancy when compared to most other EU nations. A case study of Montenegrin e-services' assistive technological communication was offered by the writers. The following economic sectors are examined by the researchers in this paper: utilities, internet banking, healthcare, higher education, and national administrative services.

A. Popa *et al.* (2023) in their study analyse the level of digitalisation of public administration in Romania. The authors identified the obstacles that arose during the attempt to implement the civil transformation policy and the impact it had on administrative staff and citizens. M. Heuberger & C. Schwab (2021) investigate the development of Germany's digital transformation from the perspective of users – citizens. To do this, the researchers compare citizens' expectations of digital transformation of such processes, actual use, and level of user satisfaction. The study's findings indicate that people's expectations are higher than what e-services are really available for. Those who are younger and more educated in particular express greater levels of annoyance when utilising these services, although older customers are generally happy with the results. The availability of these services and the population's varying degrees of digital literacy account for this degree of happiness or dissatisfaction.

S. Kuhlmann & J. Bogumil (2021) have also studied the digital transformation of public service delivery in Germany. They contend that Germany's public administration is still a long way from digitalising to the extent indicated by the government. But unlike other studies who simply looked at the perceptions of those who

used these services, the authors also polled employees and residents as well as heads of staff councils and mayors in German towns.

D. Spacek (2018) argues that back in 2016, social media became the most popular means of spending time online. This is still the case in 2024, although the emphasis on other social networks has changed. In 2016, the author states that already 8 years ago (in 2016) social media were perceived as new tools that could increase the participation and involvement of citizens and other important stakeholders in public decision-making for several years. The researcher focused on the study of the use of Facebook by Czech public authorities.

S.V. Onyshchuk *et al.* (2020) examined how administrative and territorial reform is implemented in the European Union in relation to Ukraine's administrative and territorial reform. As a result, the researchers were able to pinpoint significant commonalities between European reforms and the idiosyncrasies of the administrative and territorial restructuring processes in various nations.

In addition, the authors presented the results of this study at the online conference "Sustainable Development of the EU: Best Practices for Ukraine". In particular, this paper already presents key aspects of EU support for decentralisation in Ukraine, including Key aspects of communication in Administrative Service Centers (Vovk & Markovets, 2024).

The European Union's experience in the digital transformation of administrative services is an important model for other countries seeking to modernise their public administration systems. There is a considerable amount of research that examines these issues in detail, both in specific countries and in the EU as a whole. The introduction of innovations such as electronic identifiers, electronic platforms for service delivery, process automation and cybersecurity significantly increase the efficiency and accessibility of services for citizens and businesses, which is confirmed by numerous studies.

The purpose of this article is to study and summarise the EU's experience in applying digital technologies in public administration, in particular, to identify successful examples, challenges, and prospects for future development. The scientific novelty of the work is to systematise the experience and analyse various data and information on the experience of implementing digital technologies in the field of administration in the EU.

Literature Review

In a world of rapid technological development and the spread of the digital environment, digital transformation is becoming increasingly important in all areas of society. One of the key areas that is subject to digital transformation is administrative services. This is especially true for the European Union countries, which are pursuing an active policy of expanding the use of digital technologies in public administration.

In 2024, there is a significant number of researchers studying the digitalisation of administrative services in the EU or in individual member states. Several researchers have examined how the digital divide and demographic factors affect citizens' intentions on their behaviour, emphasising the importance of income and economic activity as determining factors.

I. Mariani *et al.* (2023) (present the results of an analysis of the EU-funded easyRights project, which explores the application of NLU (Natural Language Understanding) methods to improve the accessibility of services and, in particular, to extract effective and step-by-step descriptions of user experience from administrative documents. The study presents the results of the work carried out by applying NLU methodology to administrative documents related to the provision of services in four European cities.

In analysis B. Skoczyńska-Prokopowicz (2016) explores the unique aspects of applying the concept of electronic New Public Management (e-NPM) in Poland and evaluates the societal and business benefits of its implementation. She argues that Poland, by aligning with European Union standards, has established an organisational framework and legal regulations for advancing digitalisation in public administration. The study also defines various e-service models and outlines five levels of maturity for their implementation. In addition, B. Skoczyńska-Prokopowicz (2016) considers the peculiarities of creating the Electronic Public Administration Communication System and the Electronic Public Administration Services Platform.

Z. Zhang *et al.* (2023) identify the so-called "hot spots" of citizens' complaints in real time – appeals. They are received from citizens through the hotlines of local governments. The researchers suggest a public opinion identification and early warning system that applies a weighting method to assign weights to frequent patterns so that more significant information is given more weight. The system uses an advanced frequent pattern mining algorithm to accurately identify topics and pertinent case information.

Some researchers have studied the challenges faced by governments in the digital transformation. T. Mettler *et al.* (2024) conducted a detailed analysis of the national digital transformation policies of 27 governments, both EU and non-EU. The authors also considered the disparities in these nations' digital capacities as measured by the UN E-Government Development Index (EGDI). The contention put up by the researchers is that digital transformation strategies frequently reference the potential of digital platforms to capture value, deliver, and exchange information in both the public and private sectors, and that public actors are increasingly realising the necessity of implementing platform-based solutions. Social media is a popular method of digital transformation of the process of communication with citizens.

A study conducted by S. Al-Masaeed (2019) found that 1/3 of Jordanian government agencies do not use social media at all. Dialogue through social media platforms in Jordan is a one-way dialog with a very low level of interaction between the government and the user. The following results of the analysis indicate a low level of effectiveness of Jordanian government accounts on social media in using social media communication tools.

The use of social media has been already actively studied over the past decade. L. Raković & S. Dakić (2024) conducted a comparative analysis of the use of social media not in European countries, but in cities in the United States and Brazil. The study's findings demonstrated that the social system administrators in the nations under consideration acknowledge the significance of social media in the contemporary communication landscape.

W. Cho & W. Melisa (2021) cite an instance of a municipal government organisation using Twitter and other social media to promote public agendas. Government-to-citizen (G2C) interaction is the most common kind of social media co-creation in Indonesian local government, with a primary goal of informing and motivating citizens to take action. Y. Feng *et al.* (2024) argue that the operation and maintenance of some Government social media (GSM) is still not standardised and the published content is not consistent with the identification positioning, leading to a realistic dilemma of low utility of GSM information.

Some scholars have studied the use of specific social networks, in particular Facebook. P. Pang *et al.* (2021) investigated the use of Facebook by government agencies during the COVID-19 pandemic to inform and communicate with the public. The authors suggest that government social media can be used to increase vigilance and awareness in the prodromal stage.

G. Lappas *et al.* (2017) evaluated the information on the official and operational Facebook sites of Greek

local governments. Their findings indicate that local governments use Facebook top-down, merely providing citizens with information from their perspective. Scholars are also actively researching the digitalisation of public services in Ukraine, focusing on the Ukrainian decentralisation reform, studying the EU experience for Ukraine. In 2017, O. Markovets & A. Peshchychyn (2017) presented the peculiarities of implementing a system for processing citizens' appeals from their posts and comments in heterogeneous web environments.

Thus, a significant number of studies show that the digital transformation of administrative services is a relevant topic that is being actively studied both within the European Union and in individual member states. These studies cover various aspects of digitalisation, including the use of electronic identifiers, service delivery platforms, process automation, data protection, social media, and other innovations. Studying these issues is important for countries seeking to modernise their public administration systems, including Ukraine, which can use the EU's experience to improve its administrative processes.

Materials and Methods

The research methodology is based on the use of general scientific methods of analysis and synthesis, as well as the case study method. The general scientific methods of analysis and synthesis allow for a detailed examination and integration of various aspects of the digital transformation processes. Analysis involves breaking down complex digital transformation phenomena into simpler components to understand their individual functions and interactions. Synthesis, on the other hand, involves combining these components to form a coherent and comprehensive understanding of the entire process. These methods were applied in the different areas (Table 1).

Table 1. Characteristics of the methods used in the research

Research method	Characteristics of the method
Analysis of general scientific methods	The study began with a review of general scientific methods, including analysis and synthesis of scientific publications, documents and statistics related to the modernisation of administrative services through digital technology.
Case study method	The main aspect of the research was to study specific cases of successful implementation of digital projects in the field of administrative services in different countries of the European Union. A detailed analysis of these cases made it possible to identify key success factors and identify problems and challenges that arise in the implementation process.
Summarising the results	This method based on the analysis of the cases, the results were summarised, which allowed us to draw conclusions about the general trends in the digital transformation of administrative services in the European Union. The conclusions include successful strategies, best practices, and recommendations for future digital projects.
Comparative analysis	A comparative analysis of the study results was conducted to identify similarities and differences in the digital transformation of administrative services in different EU countries.

Source: developed by the authors

These methods offered a methodical way to investigate how administrative services are being digitally transformed across various EU nations. They enabled us to identify key success factors and challenges, and to draw conclusions and recommendations for future digital projects. Through the application of these methods, we were able to obtain a comprehensive view of the processes and trends in the digitalisation of administrative services. This insight is invaluable, as it will help to increase the effectiveness of future initiatives in this area. By understanding what works and what doesn't, policymakers and practitioners can better design and implement digital projects that meet the needs of citizens and improve the overall efficiency of administrative services.

Results and Discussion

The modernisation of administrative services through digital technology is an urgent issue not only in the field of public administration, but also in scientific research, both by European and Ukrainian scientists. Although the digitisation of administrative services in all

European countries is taking place in a comprehensive manner, each sector has its own characteristics and speed of digitalisation. In particular, A. Simon *et al.* (2023) examined the nation of Montenegro's present and prospective digitalisation initiatives in the fields of healthcare, agriculture, and cooperative intelligent transportation systems (C-ITS). But Montenegro's C-ITS are still in their infancy, and there are no specific policies, guidelines, or plans in place to get ready for any pilot deployments.

The impetus for the digital communication technologies development in the provision of administrative services was the artificial intelligence (AI) use. Significant advantages are already being seen from the integration of artificial intelligence into public sector operations and procedures, such as improved service delivery efficacy and efficiency. Artificial intelligence has great potential to improve the provision of administrative services by government and municipal authorities. This can make the process of providing services more efficient, faster and more accessible to citizens. The Table 2 shows several ways AI can be used in this area.

Table 2. Ways to use artificial intelligence in the provision of administrative services

Ways of using	Description
Answering citizens' questions	Chatbots and virtual assistants can answer common questions from citizens, helping them get information about taxes, social services, permits, etc. without waiting for an operator.
Document processing	AI can automate document processing, including applications for services. This will help to reduce waiting times and reduce the number of errors.
Personalisation of services	Data analytics and machine learning allow developing personalised recommendations and services for citizens based on their individual needs.
Monitoring and analytics	AI can help government agencies track the effectiveness of service delivery and identify areas for improvement.
Forecasting the volume of services	AI can use data and analysis to predict the volume of citizen requests and prepare administrative resources accordingly.
Customer service automation	The use of speech recognition and natural language processing allows automating the processing of phone calls and online chats for citizens.
Fighting fraudsters	AI can help identify fraudsters and prevent fraud in administrative services by analysing and detecting anomalies.

Source: based on I. Mariani *et al.* (2023)

The EU-funded simple Rights project investigates the application of natural language understanding (NLU) methods to enhance service accessibility, specifically to extract efficient and methodical user experience descriptions from administrative documents. The project's goals are to make service delivery processes easier to understand and to give service users a better overall experience (Mariani *et al.*, 2023).

One of the digital transformation areas in Europe is the introduction of e-government. The European Commission has already taken substantial strides toward establishing e-government at both national and European

levels. Nevertheless, the implementation of the digitalisation strategies recommended by the European Commission varies across EU member states. The Greek government lags behind in achieving specific digital transformation goals, such as transparency, cross-border mobility, and key enablers, according to the EU e-Government Benchmark 2020. As a result, their rates of digitalisation and penetration are significantly lower than the EU average (Patergiannaki & Pollalis, 2021). The European Commission and the Greek government have set strategic goals for e-government over time. Figure 1 shows a qualitative comparison of these aims.

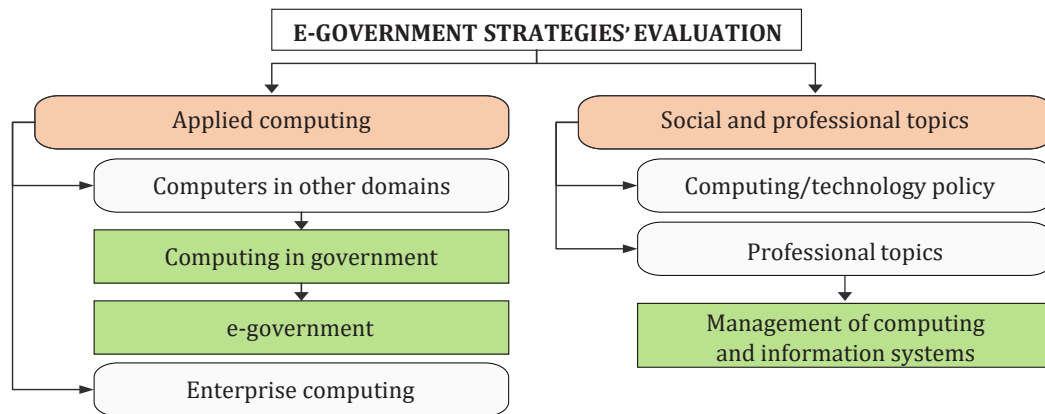


Figure 1. A common workflow for e-government services operations on a “single window”

Source: based on Z. Patergiannaki & Y. Pollalis (2021)

A typical workflow for executing transactions connected to these services is outlined in The Concept and Methodology for Developing Indicators and Metrics to Assess the Quality and Performance of Single Window e-government Services (Fig. 2). This is based on the

CB-BUSINESS intermediation architecture. In accordance with this general one-stop shop workflow, end users can browse the CB-BUSINESS intermediary center’s service offerings and submit requests for one-stop shop transactions (Gouscos *et al.*, 2007).

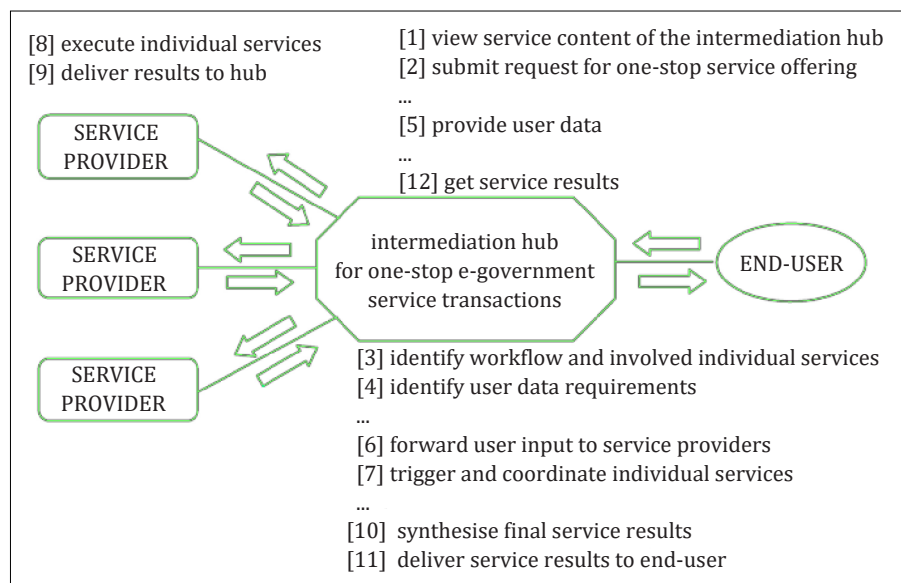


Figure 2. A standard procedure for conducting one-stop transactions

for e-government services over the intermediation architecture created for the CB-BUSINESS project

Notes: [1], [2] ... [11] – list of operations for the provision of e-government services

Source: based on D. Gouscos *et al.* (2007)

Implementing the principles adopted in the European Union, Poland has created an organisational framework, including legal norms on informatisation, for the implementation of digitalisation and digitisation in public administration. The next step for the development of state administrative services digitalisation in Poland will be the creation of the Electronic Public Administration Communication System (SEKAP) and the Electronic Public Administration Services Platform (ePUAP), improvement of interoperability, integration

of SEKAP and ePUAP, and implementation of an e-learning platform (Skoczyńska-Prokopowicz, 2016).

The study analysis makes it possible to conclude that the impetus for the use of information and communication technologies in the provision of administrative services was the transformation of cities into “smart cities”. Smart cities use information and communication technologies to connect urban activities that have not been connected until now. The functional concept of using information and communication technologies

makes it possible to achieve many goals and objectives of developing communication with citizens, in particular, the provision of knowledge-based services using the collection of “big data” (Laconte, 2019).

In 2020-2024s, virtual communities (VCs) can help improve the accessibility and quality of administrative services by facilitating interaction between citizens, authorities, and other stakeholders via the Internet. VCs play an important role in the provision of administrative services, especially in the context of modern technology and digitalisation. The ways in which they can be used include forums and social networks; virtual advice centers; electronic public consultations; joint projects and innovations; training and information education; electronic petitions and appeals. As part of an innovation project sponsored by the EU, researchers are specifically examining the

influence of the virtual user community on the creation of a new multimedia service. Researchers and related administrative staff managing cooperative projects or shared responsibilities in remote laboratories worldwide are the virtual communities taken into consideration in this context (Blažič-Džonova & Blažič 2016).

The European Union (EU) has been an active partner of Ukraine in implementing decentralisation. The EU has provided financial and technical support, advised the Ukrainian government on local government reform and provided expert assistance in this process. The EU also helped to create the necessary conditions for local business development and supported the implementation of local community development projects. Figure 3 shows some of the key aspects of EU support for decentralisation in Ukraine.

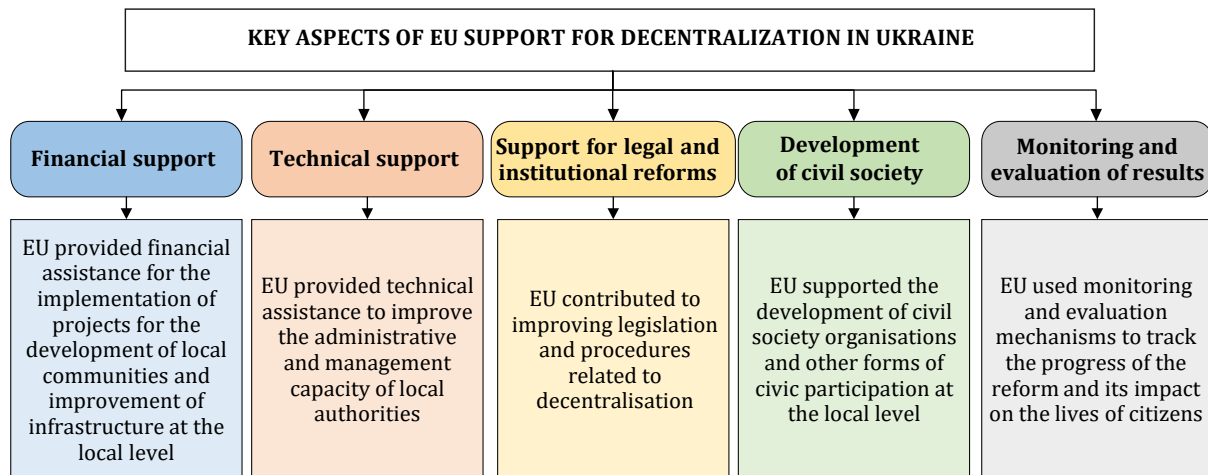


Figure 3. The key aspects of EU support for decentralisation in Ukraine

Source: developed by the authors

This support aims to achieve greater autonomy of local communities and improve the quality of Ukrainian citizens' lives through more effective local governance. Undoubtedly, the sustained partnership efforts between Ukraine and the European Union have played an important role in the implementation of decentralisation reforms in Ukraine.

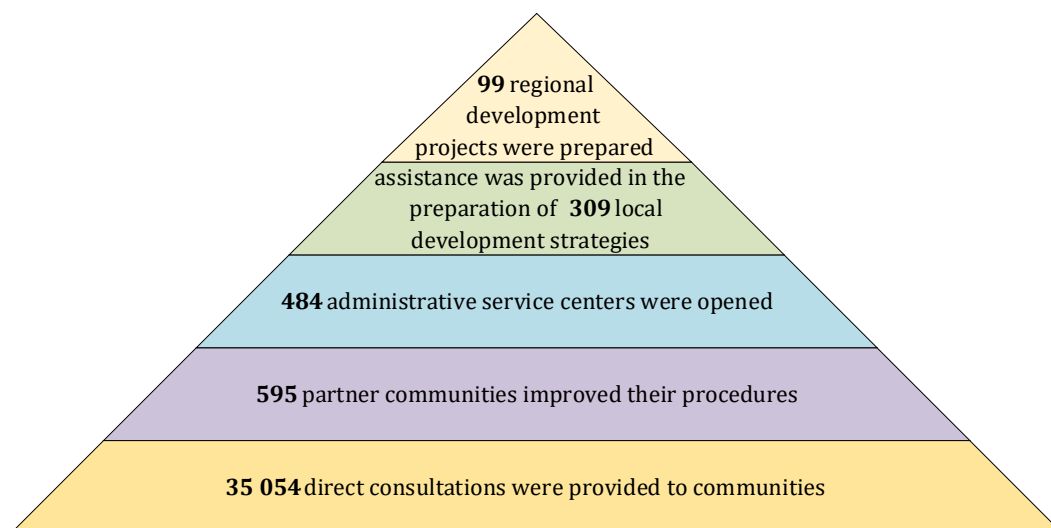
One of the programs supporting decentralisation reform in Ukraine is U-LEAD (Ukraine – Local Empowerment, Accountability, and Development), also known as U-LEAD with Europe (2022). In order to create a multi-level governance structure that is open, responsible, and sensitive to the needs of Ukrainian citizens, the Ukrainian government, the European Union, and its member states – Germany, Sweden, Poland, Denmark, Estonia, and Slovenia – have joined forces to launch this initiative. The program's goal is to strengthen the ability of important players and stakeholders at the local, regional, and national levels in order to empower local

governance in communities, particularly in times of rebuilding and conflict. The European Union is the primary donor for U-LEAD with Europe and a steadfast supporter of local government reform in Ukraine. The EU Delegation to Ukraine co-chairs the U-LEAD with Europe Steering Committee. Alongside other key EU bodies, such as the European Commission's Support Group for Ukraine, the EU Delegation has been consistently guiding the program. Furthermore, the EU's expertise is evident throughout all aspects of the program's implementation. For example, in cooperation with the Council of European Municipalities and Regions, Ukrainian communities gain first-hand experience, and through intensive interaction with municipalities from across Europe, learn about truly effective tools for achieving local development. Together with Germany and Denmark, EU has funded emergency support packages for 333 communities in connection with the war (Table 3). Figure 4 shows the main results of the program for 2016-2023.

Table 3. The priorities of the Program U-LEAD with Europe

Priority name	Priority characteristic
Support for reforms	Program partners support major players at the national, regional, and municipal levels in their efforts to guarantee the crucial role that local self-government plays in the current context of conflict and reconstruction by offering legal consultation and policy recommendations.
Recovery	The Program partners help Ukrainian communities to adapt to the conditions of war and reconstruction, organise trainings, consultations and various other activities aimed at increasing the capacity of Ukrainian communities; such capacity building activities balance individual and standardised approaches.
Reconstruction	Program partners support territorial communities in planning, coordinating and implementing reconstruction measures aimed at responding to the urgent needs of residents, providing quality basic public services and promoting local economic recovery.
Resilience	Program partners are encouraging Ukrainian communities to function and survive the ongoing military aggression, in particular, to be able to repair and rebuild their infrastructure faster and be more flexible in transporting their residents.

Source: based on U-LEAD with Europe (2022)

**Figure 4.** Results of the U-LEAD with Europe Program (2016-2023)

Source: developed by the authors based on U-LEAD with Europe (2022)

In Ukraine, the launch of Administrative Service Centers (ASCs) was part of the decentralisation reform and aimed at improving the quality of administrative services and providing more convenient access to them for citizens. It was an important initiative aimed at increasing the efficiency of governance and improving the quality of life of Ukrainian citizens.

ASC is one of the key tools for decentralisation and modernisation of administrative services in many countries, including Ukraine. It is an innovative mod-

el of providing state and municipal services to citizens and businesses that simplifies and improves access to administrative services.

An important segment of administrative service delivery in ASCs is the establishment of communication with citizens; as such, communication is an important component of the effective functioning of such centers and meeting the needs of citizens in the provision of administrative services. Figure 5 shows key aspects of communication in ASCs.

Contact center Establishing a contact center or telephone hotline where citizens can receive information and advice on the services provided by the ASC	Website and online portals Development and maintenance of a website or online portal for the ASC where citizens can find information about available services opening hours and other useful information	Social media Use of social media to communicate with citizens and provide them with up-to-date information about ASC's work, new services and changes in service delivery procedures	Queuing and recording system Introduction of an electronic queuing and recording system to avoid long queues and improve service
Reports and feedback Collecting and analysing feedback from citizens on the work of the ASC, as well as providing regular reports on the work of the center and responding to citizen inquiries	Public events and consultations Organising public events, open discussions and consultations with citizens to discuss issues related to the work of the ASC and the quality of service provision	Staff training Training ASC staff to interact with citizens, answer questions and solve problems	

Figure 5. Key aspects of communication in Administrative Service Centers

Source: developed by the authors

Ensuring effective communication helps to improve the accessibility and quality of administrative services for citizens and contributes to the improvement of relations between government agencies and citizens.

Conclusions

The expansion of administrative service delivery in Ukraine with the support of the European Union may include a number of initiatives and measures aimed at modernising and effectively using digital technologies. The study identified specific areas of EU support for the modernisation and effective use of digital technologies in Ukraine. With EU support, e-governance systems can be developed in Ukraine to provide citizens and businesses with convenient and efficient access to administrative services via the Internet. This could include the introduction of portals for submitting applications and documents, online consultations, and the ability to track the status of applications. With the help of EU funding and expert support, administrative service centers can be established in different regions of Ukraine. These centers can combine different government services and provide services in one place, making the process of obtaining services more convenient and efficient. With EU support, further development of electronic identification is possible. The development and implementation of an electronic identification system similar to the EU's eID systems could contribute to the security and convenience of citizens' interaction with government agencies and administrative services.

With the support of the EU, programs can be introduced to educate and improve digital literacy among the Ukrainian population. This will help ensure that citizens can use digital services and resources effectively.

In addition, the government of Ukraine can actively cooperate with European countries and EU bodies to exchange experience and best practices in the provision of administrative services. With the help of the EU, these projects seek to raise the standard and make administrative services easier to find in Ukraine. They can also help to increase public administration efficiency and better serve the requirements of enterprises and individuals alike.

Possible areas for further research in this area include assessing the impact of digital transformation on the quality and accessibility of administrative services, analysing the socio-economic impact of digital transformation, comparative analysis of digital transformation strategies, research on the ethical aspects of using artificial intelligence in public administration, and developing a legal and regulatory environment for digital technologies in the administrative sector. Such research will contribute to the understanding of digital transformation processes in the administrative sector and help develop strategies for the further development and improvement of digital administrative services.

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Conflict of Interest

None.

References

- [1] Al-Masaeed, S. (2019). Social media use by government: Adoption and efficiency. *International Journal of Electronic Governance*, 11(2), 205-216. doi: [10.1504/IJEG.2019.101497](https://doi.org/10.1504/IJEG.2019.101497).
- [2] Blažic-Džonova, B., & Blažič, A.J. (2016). [Studying the virtual user community in an international innovation project: The attitudes and the cultural background](#). In P. Kommers, A.P. Abraham & J. Roth (Eds.), *IADIS international conference web based communities 2016 (part of MCCSIS 2016)* (pp. 3-12). Madeira, Portugal.
- [3] Cho, W., & Melisa, W. (2021). Citizen coproduction and social media communication: Delivering a municipal government's urban services through digital participation. *Administrative Sciences*, 11(2), article number 59. doi: [10.3390/admsci11020059](https://doi.org/10.3390/admsci11020059).
- [4] Feng, Y., Zhang, S., & Sun, X. (2024). Research on the strategy for improving the utility of government social media information based on a multi-agent game model. *Journal of Information Science*. doi: [10.1177/01655515231216019](https://doi.org/10.1177/01655515231216019).
- [5] Gouscos, D., Kalikakis, M., Legal, M., & Papadopoulou, S. (2007). A general model of performance and quality for one-stop e-Government service offerings. *Government Information Quarterly*, 24(4), 860-885. doi: [10.1016/j.giq.2006.07.016](https://doi.org/10.1016/j.giq.2006.07.016).
- [6] Heuberger, M., & Schwab, C. (2021). [Challenges of digital service provision for local governments from the citizens' view: Comparing citizens' expectations and their experiences of digital service provision](#). In *The future of local self-government* (pp. 115-130). Cham: Palgrave Macmillan.
- [7] Kuhlmann, S., & Bogumil, J. (2021). [The digitalisation of local public services](#). In *The future of local self-government* (pp. 101-103). Cham: Palgrave Macmillan.
- [8] Laconte, P. (2019). [From information-communication city to human-focused city](#). In V. Popovich, J.C. Thill, M. Schrenk & C. Claramunt (Eds.), *Information fusion and intelligent geographic information systems. Advances in geographic information science* (pp. 27-54). Cham: Springer.
- [9] Lappas, G., Triantafyllidou, A., Deligiaouri, A., & Klefodimos, A. (2017). [Facebook communication strategies and their effectiveness: A case study of greek local municipal governments](#). In *MISNC '17: Proceedings of the 4th multidisciplinary international social networks conference* (pp. 1-6). Bangkok: Association for Computing Machinery.
- [10] Mariani, I., Karimi, M., Concilio, G., Rizzo, G., & Benincasa, A. (2023). [Improving public services accessibility through natural language processing: Challenges, opportunities and obstacles](#). In K. Arai (Ed.), *Intelligent systems and applications. IntelliSys 2022* (pp. 272-289). Cham: Springer.
- [11] Markovets, O. & Peleshchyshyn, A. (2017). [Stages of implementation of citizens' appeals processing system in heterogeneous web environments](#). In *Proceedings of the 12th international scientific and technical conference on computer sciences and information technologies* (pp. 75-78). Lviv: IEEE.
- [12] Mettler, T., Miscione, G., Jacobs, C.D., & Guenduez, A.A. (2024). Same same but different: How policies frame societal-level digital transformation. *Government Information Quarterly*, 41(2), article number 101932. doi: [10.1016/j.giq.2024.101932](https://doi.org/10.1016/j.giq.2024.101932).
- [13] Onyshchuk, S.V., Onyshchuk, I.I., Siryk, Z.O., & Turenko, V.E. (2020). [Practice of administrative and territorial reform in the EU and Ukraine: Regulatory and management](#). *International Journal of Management*, 11(4), 487-499.
- [14] Pang, P.C.-I., Cai, Q., Jiang, W., & Chan, K. (2021). Engagement of government social media on Facebook during the COVID-19 pandemic in Macao. *International Journal of Environmental Research and Public Health*, 18(7), article number 3508. doi: [10.3390/ijerph18073508](https://doi.org/10.3390/ijerph18073508).
- [15] Patergiannaki, Z., & Pollalis, Ya. (2024). E-government quality from the citizen's perspective: The role of perceived factors, demographic variables and the digital divide. *International Journal of Public Sector Management*, 37(2), 232-254. doi: [10.1108/IJPSM-07-2023-0229](https://doi.org/10.1108/IJPSM-07-2023-0229).
- [16] Patergiannaki, Z., & Pollalis, Ya. (2021). [eGovernment strategies' evaluation: A qualitative comparative analysis on eGovernment strategic objectives set over the years by the European Commission and the Greek government](#). In *Proceedings of 14th international conference on theory and practice of electronic governance* (pp. 216-222). New York: Association for Computing Machinery.
- [17] Popa, A.M., Dima, C., & Anghel, A.M. (2023). [Facing complexity derived from digital transformation of public administration](#). In *24th international conference on control systems and computer science* (pp. 267-272). Bucharest: IEEE.
- [18] Raković, L., & Dakić, S. (2024). A comparative analysis of social media usage: The case of social media use by USA and Brazilian capital cities. *Electronic Government an International Journal*, 20(1), 47-65. doi: [10.1504/EG.2024.135311](https://doi.org/10.1504/EG.2024.135311).
- [19] Simon, A., Lakovic, L., Kovacevic, P., Kara, P.A., Ognjanovic, I., Sendelj, R., Reich, C., Roganovic, M., Mantas, J., & Bokor, L. (2023). Assistive technical communication of Montenegrin eServices: A case study. In *27th international conference on information technology*. Zabljak: IEEE. doi: [10.1109/IT57431.2023.10078664](https://doi.org/10.1109/IT57431.2023.10078664).

- [20] Skoczyńska-Prokopowicz, B. (2016). [Social benefits of innovative public administration services](#). In *Communication, management and information technology* (pp. 17-22). Boca Raton: CRC Press.
- [21] Spacek, D. (2018). Social media use in public administration: The case of Facebook use by Czech regions. *NISPAcee Journal of Public Administration and Policy*, 11(2), 199-218. doi: 10.2478/nispa-2018-0019.
- [22] U_LEAD with Europe. (2022). Retrieved from <https://u-lead.org.ua/>.
- [23] Vovk, N., & Markovets, O. (2024). [EU experience in the digital transformation of administrative services](#). In *Materials of the internet conference* (pp. 38-42). Lviv: Lviv Polytechnic National University.
- [24] Zhang, Z., Lin, X., & Shan, Sh. (2023). Big data-assisted urban governance: An intelligent real-time monitoring and early warning system for public opinion in government hotline. *Future Generation Computer Systems*, 144, 90-104. doi: 10.1016/j.future.2023.03.004.

Досвід ЄС у цифровій трансформації адміністративних послуг

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Анотація. Досвід ЄС у сфері цифрової трансформації адміністративних послуг є важливим, оскільки демонструє ефективні підходи до підвищення прозорості та ефективності державного управління. Вивчення європейських практик допомагає вдосконалити цифрові послуги в інших країнах, які прагнуть модернізувати свої адміністративні системи, зокрема в Україні. Мета дослідження – проаналізувати та узагальнити досвід ЄС у впровадженні цифрових технологій у сфері адміністрування, виокремити успішні практики, виклики та можливості для подальшого розвитку. У методології дослідження використано метод кейс-стаді, який розглядає конкретні приклади успішної реалізації цифрових проєктів у сфері адміністративних послуг у різних країнах ЄС, виокремлюючи фактори успіху та виклики, а також загальнонаукові методи аналізу та синтезу. Таке комплексне дослідження може стати важливим внеском у розуміння процесів цифрової трансформації в адміністративному секторі. На основі отриманих результатів запропоновано рекомендації щодо використання досвіду ЄС в Україні. Розширення надання адміністративних послуг в Україні за підтримки Європейського Союзу може включати низку ініціатив та заходів, спрямованих на модернізацію та ефективне використання цифрових технологій. Основними напрямками підтримки ЄС модернізації та ефективного використання цифрових технологій в Україні є: розвиток електронного урядування; розбудова мережі центрів надання адміністративних послуг; подальший розвиток електронної ідентифікації; підвищення цифрової грамотності; співпраця з європейськими партнерами. У 2024 році адміністративні послуги розглядаються з точки зору налагодження комунікації між владою та суспільством, де ключовими для успіху є низка факторів, серед яких кількість запитів, формат запитів, час реагування, актуальність тощо. Ці ініціативи спрямовані на підвищення якості та доступності адміністративних послуг в Україні за підтримки ЄС і можуть сприяти підвищенню ефективності державного управління та задоволенню потреб громадян і бізнесу. Практична цінність цього дослідження полягає у можливості вдосконалення державного управління в Україні шляхом впровадження ефективних цифрових технологій та підвищення якості адміністративних послуг на основі досвіду ЄС. Це також сприятиме підвищенню цифрової грамотності населення, посиленню співпраці з ЄС та створенню більш зручних сервісів для громадян і бізнесу, що покращить економічний клімат в країні.

Ключові слова: європейський досвід; державне управління; електронне урядування; електронна ідентифікація; центри надання адміністративних послуг; модернізація