

The impact of the pandemic on municipal e-administration in Hungary

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In Hungary, we have witnessed a number of measures to improve public administration in the last decade. As a result of the changing legal environment and technological developments, the tools of e-administration have become increasingly accessible to all citizens. We have witnessed a particularly significant development in recent years with regard to local governments, which have played a key role in Hungary despite the centralization efforts of the last decade.

Although the use of e-administration tools have become common in the procedures conducted by citizens in the central administration, we do not yet have enough quantifiable data in the field of local governments.

The centrally operated municipal electronic administration system was generally set up just one year before the launch of COVID-19. Restrictions aimed at curbing the pandemic were generally thought to have had a positive effect on the widest possible use of e-administration. In my study, I attempt to verify this relationship based on the database of the state treasury operating the system and my own primary survey.

Keywords: e-administration, municipalities, digital government, ASP, COVID-19

Introduction

Hungary has a specific municipal geography. At the time of the regime change more than 3,100 independent municipalities with extensive autonomy were established under the comprehensively amended Constitution and Act LXV of 1990 on Local Governments. This fragmented nature of the local level of public administration did not favour uniformed digital development, which is why there was no specified local e-administration until the 2010s. The legal environment and the lack of centrally coordinated technological development did not facilitate the emergence and consolidation of local e-administration.

The government recognized underlying problem, and since the mid-2010s--in parallel with the restructuring of the tasks of municipalities--it has sought to improve the digital readiness of local governments and their offices through targeted developments. Perhaps the most important milestone in this process was the general introduction of the municipal ASP system for local governments in 2019.

The emerge of the COVID-19 in 2020 prompted the government to introduce a number of restrictive measures. In many cases, physical distancing measures or quarantine obligations affecting the majority of employees in a given municipality resulted in a temporary suspension of face-to-face customer service for longer or shorter periods in the municipal offices, these being perceived as the physical location of administration.

In a situation of crisis, the resilience of a system becomes apparent. From the point of view of public administration, resilience can also be interpreted as the extent to which it is ensured that customers can access the quality of service they are used to under the changed circumstances. An important component of the resilience of a system may be the use of digital solutions (e. g. access to banking services, digital education, etc.), which in public administration is best characterised by e-administration indicators.

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In my study, I will focus on the extent to which the practice of e-administration has changed under the circumstances mentioned above. My study focuses specifically on the local level of public administration, including local authorities and local government offices (as public authorities), partly because this is the area where the general conditions for e-administration have been created at the latest, and partly because these bodies are accessible to customers in each municipality, which may clearly encourage customers to use face-to-face administration and to avoid electronic means.

Main questions and hypothesis

Several questions were formulated prior to the research. Is the use of e-administration sufficiently ensured in the Hungarian local government administration? If so, to what extent do customers use it? Did the development of e-administration, which was more or less completed by 2019, really have an impact, i.e. has the number of electronic submissions for the initiation of administrative procedures in local government increased? What has been the impact of the pandemic on the use of electronic means?

My main hypothesis (H1) on these questions is as follows: The number of public procedures initiated electronically increased significantly over the period under review due to the lifting of legal barriers and to technological developments. With the appearance of the COVID-19 in 2020 and 2021 these numbers further increased the pace of growth. I supplement this hypothesis with the following assumption (H2): The number of electronically submitted applications in the local subsystem of public administration has increased at or close to the same rate as in the central subsystem.

It is important to recognise that the rate of increase may in fact be a measure of the effectiveness of new developments.

Research Methodology

In the course of the research, I analysed the professional literature so as to define e-administration and selected the main aspect of the e-administration process for investigation. Subsequently, I reviewed the changes in the rules of the local government subsystem concerning e-administration by analysing the relevant provisions of the national legislation on public administration procedures.

However, in order to carry out the study properly, I needed measurable statistical data. From the outset of the research, it became apparent that while the most popular e-government platforms used by central government (such as Web Assistant) have publicly available data², this is not the case for the local government subsystem. Consequently, I had to collect relevant data for the available platforms. One of my main sources was the database on the number of cases initiated through the municipal ASP e-administration platform, which was prepared after data reconciliation with the Hungarian State Treasury, and another source was the primary questionnaire survey I conducted with nearly one hundred and fifty municipalities.

The questionnaire was designed to present the number of electronic transactions in the year before the pandemic (2019) and during the pandemic (2020-2021). By systematically compiling the data as described above, I was able to identify correlations that helped to confirm or refute my preliminary hypotheses.

² See the Hungarian Ministry of Interior's annually published monitoring reports: <https://nyilvantarto.hu/hu/statisztikak?stat=monitoring> (retrieved: 20/05/2022).

1. Defining the electronic administration

Electronic administration can be placed primarily in the toolbox of electronic-, or nowadays increasingly called digital government. The OECD defined eGovernment in the early 2000's as follows: the use of information and communication technologies and particularly the Internet, as a tool to achieve better government.³ More than a decade later, the organisation also defined digital public administration: the use of digital technologies, as an integrated part of governments' modernisation strategies, to create public value. It relies on a digital government ecosystem comprised of government actors, non-governmental organisations, businesses, citizens' associations and individuals which supports the production of and access to data, services and content through interactions with the government.⁴ Academic literature⁵ is currently divided as to whether the two concepts can be considered synonymous, but it is important to note that the meaning of what is referred to as electronic government or digital public administration is constantly changing over time as technology evolves.⁶

Electronic administration can be understood in the context of electronic or digital government. There are also many definitions of this phenomenon in the international academic literature. An early definition of e-administration is that it is a form of civil contact management.⁷ Some authors consider e-administration as a set of tools to achieve the goal of a paperless office. A widely used definition of e-administration refers to a mechanism that transforms traditional paper-based office processes into electronic processes, i.e. ICT tools that aim to improve the efficiency and performance of different organisations.⁸ We might be challenged when looking for a legal definition of the term. The concept of e-administration is currently not defined in any Hungarian legislation, and the explanatory memorandum of Act CCXXII of 2015 on the General Rules of e-Administration and Trust Services explicitly states that the literature is still lacking a consensus definition. Nevertheless, the text of Act CXL of 2004 on the General Rules of Administrative Procedure and Services, in force until 31 December 2016, provided us with a definition: it included in the scope of electronic administration those procedural acts in which the client or the body providing the administration makes an electronic declaration or the body providing the administration converts a non-electronic declaration of the client or another body providing the administration into an electronic declaration and uses it in the procedure.⁹ It may not be far-fetched to capture the essence of e-government in our administrative research as a specific interaction between public authorities and their clients, typically in paperless or digital form, and typically with the aim of producing legal effects.¹⁰ However, it should be underlined that there is another understanding of e-administration, which focuses on the internal processes of the organisation. In this

³ OECD: The e-Government Imperative. OECD e-Government Studies, OECD Publications, Paris, France, pp. 3-11. DOI: <https://dx.doi.org/10.1787/9789264101197-en>

⁴ OECD Public Governance and Territorial Development Directorate: Recommendation of the Council on Digital Government Strategies, p.6.

⁵ See: CHEN, Hsinchun et al. (eds): Digital Government – E-Government Research, Case studies and Implementation. Springer, 2008. USA. xvi. or CSEH, Gergely – PAULOVICS, Anita: A közigazgatási bürokrácia digitalizálása. Infokommunikáció és Jog. 2018. december. p.62.

⁶ CSÁKI-HATALOVICS, Gyula Balázs: A Digitális Közigazgatás. Miskolci Jogi Szemle 16. évf. 1. különszám, 2021. p.56.

⁷ MICHEL, Helen: E-administration, e-Government, e-Governance and the Learning City: a Typology of Citizenship management using Icts. The Electronic Journal of e-Government Volume 3 Issue 4, 2005. pp. 213-218.

⁸ KHOROW-POUR, Mehdi (eds.): Encyclopedia of Information Science and Technology, Third Edition, IGI Global, Hershey, 2015. p. 5301.

⁹ Paragraph 172.

¹⁰ Mainly C2G and B2G connections

sense, e-government refers to the process whereby paper-based administration (e.g. construction) within an organisation becomes electronic.¹¹

2. Electronic administration at the local level of public administration

In my introductory remarks I have already briefly referred to the specific nature of the Hungarian local government system. At the time of the change of the regime, local governments were basically created as autonomous entities with a high degree of autonomy as a direct consequence of the complete denial of the previous state organisation based on socialist foundations.¹² It was a matter of principle that every municipality, regardless of its legal status (village, city, city with county's rights or capital), should have its own self-government, board of representatives and mayor. Looking at the figures, more than 3,100 municipalities were created during the regime change in a country of just over 10 million inhabitants.

In the new system of local governments the notary (leader of the municipality's office) became a special player of the system. While some of the notary's duties were related to the activities of the municipality (preparing and implementing decisions of the municipal council, ensuring legality), the notary was also a general top tier public administration, exercising the vast majority of powers in the fields of social affairs, child protection, guardianship, offences, local taxation, and even animal protection, regardless of the size and technical equipment of the office the notary was in charge of. In a somewhat simplistic way, it may be said that, until the 2010s, the majority of citizens had to turn first to the notary, or the municipal office¹³ headed by the notary for almost all major administrative matters.

Of course, a high level of autonomy brought not only advantages but also disadvantages for local authorities. Sikolya points out in one of his works¹⁴ that while the central administration had 49 000 computers in 1993, the more than 3,100 municipalities had a total of 6,000. In the absence of centralised management in 2021, there could be no coherent IT development at local level in public administration, so that until the 2010s we will find isolated developments at most.

The legal environment did not help digitalisation developments. The possibility to submit applications electronically was only made possible by Hungary's first administrative procedure law, (Act IV of 1957, which also underwent a thorough revision after the regime change; hereinafter: the *Áe.*), however, only after its amendment in 2001. Under the amended Article 16 of the Act, applications addressed to an administrative body could as a rule still be submitted only orally or in writing, but in exceptional cases the law could require the client to submit the application on a form provided for this purpose. However, there are no signs that such local legislation has been adopted.

The Act CXL of 2004 (hereinafter: the *Ket.*), which replaced the *Áe.*, brought a turning point and broke with its predecessor. It provided for the obligation to receive applications by electronic means as a general rule with the

¹¹ ZSOM, Brigitta: Az elektronikus közigazgatás és a területi kutatások kapcsolatáról. In: *Tér és Társadalom* 28. évf. 3. sz. 2014. 21.

¹² GAJDUSCHEK, György 2012. *Változások az önkormányzati rendszerben: Egy értelmezési kísérlet.* Fundamentum 2012/2. p. 61.

¹³ Mayor's Office or Joint Municipality Office

¹⁴ SIKOLYA, Zsolt: A közigazgatás számítógépesítése a rendszerváltás után. A „hiteles helyektől” az elektronikus közigazgatásig. Primaware Kiadó, Szeged, 2001. p. 183.

proviso that other legislation may exclude the electronic handling of certain matters. In the Hungarian legal system, the representative bodies of local governments are considered to be legislators, as they may issue local government decrees. Perhaps an indication of the lack of technological preparedness of small municipalities operating without central control is the successive local government decrees that have excluded the possibility of using electronic means.

Act CCXXII of 2015 on the General Rules of Electronic Administration and Trust Services was the first to make electronic communication mandatory for certain organisations (such as local governments and their bodies, in addition to public administration bodies or courts) in their communication with each other. Our third administrative procedural law, Act CL of 2016 on the General Administrative Procedure, lists regulated electronic communication as one possible form of written communication. The combined application of these two laws precludes local authorities from being exempted from the obligation to receive requests electronically.

3. The technological background

Electronic administration interfaces in central administrations have been in place for years. However, it is important to recognise that even today we do not have a single, uniform interface. The system that has undoubtedly been the most used in the last few years is the Web Assistant, but the National Tax and Customs Authority also has its own application, not to mention the XR system or the OkmányApp.

The use of the Web Assistant allows the initiation of a wide range of administrative procedures, in particular document applications, vehicle registration, applications for a certificate of good conduct, birth registration, notifications to the register of identity and address, or the registration and modification of data for self-employment.

The ePapír (which means e-, or electronic paper) is a more versatile service than the Web Assistant. Its basic aim is to enable people who are less familiar with IT tools and applications to manage their affairs electronically. ePapír allows the submission of free-text submissions instead of forms or the submission of digitised documents originally on paper in a certified way.¹⁵ Very importantly, ePapír is not only used for the administration of central and regional public administrations. It can be used to contact any public administration, including municipalities or local government offices.

Until 2019, municipalities did not have a standardised administrative interface similar to the Web Assistant, but could only use ePapír. By 2019, the ASP had been developed, which also created numerous new opportunities in this area. ASP is the short term for Application Service Provider. In practice, this means that local governments do not need to develop their own electronic administration and management solutions, but can use them via a service centre over the internet with network access. The legal basis for the mandatory use of ASP by local governments was created by Act LIV of 2016 amending Act CLXXXIX of 2011 on Local Governments in Hungary.¹⁶ As a result of the ASP project, a centrally unified web portal has been created at the municipal level, which specifically supports e-government in local government. The Local Government Office Portal (OHP) is the

¹⁵ See the notice of the NISZ National Infocommunications Services Company Ltd.: Új időszámítás az e-ügyintézésben – 2017.12.20. <https://www.nisz.hu/hu/aktualis/%C3%BAj-id%C5%91sz%C3%A1m%C3%ADt%C3%A1s-az-e-%C3%BCgyint%C3%A9z%C3%A9sben> (retrieved: 20/05/2022).

¹⁶ BALOGH, Gábor et al.: Az elektroikus Ügyintézés hazai helyzete 2018-ban. Nemzeti Közszolgálati Egyetem Államkutatási és Fejlesztési Intézet, Államreform Központ, Budapest, 2019. p.116.

place for e-administration in the municipal ASP system. The portal provides both natural and legal person customers of municipalities using the municipal ASP system with the possibility to use electronically accessible services developed for the specialised system applications and to fill in various forms.

At this point it should be stressed that the ASP not only provided software support, but also provided municipalities with support for the development of ICT infrastructure under the KÖFOP-1.2.1-VEKOP-16 EU project.

4. The impact of the pandemic on e-administration

I have identified the most relevant indicator of e-administration as the number of cases initiated on each e-administration platform. These are the most descriptive of C2G and B2G contacts, as they allow to infer the number of times customers have actually made an electronic submission to the authorities.

As indicated above, I have basically looked at the last three years. In 2019, the ASP system was rolled out nationally, allowing municipalities to create and make publicly available application forms for matters within their jurisdiction. In 2020, with the emergence of the pandemic, the provisions on distance working were issued (use of masks, curfew at certain times of the day, mandatory quarantine following contact with people with confirmed COVID-19 infection, etc.). In 2021, most of the measures were maintained and, for a shorter period, government decree 104/2021. (III.5.) imposed the use of distance working as the main rule in public administration.

In order to examine the figures for the three years, I needed first and foremost quantifiable data.

A further challenge to overcome was the fact that the statistical data needed to carry out the studies were only partially available for certain schemes. For certain central interfaces, such as Web Assistant, the Ministry of Interior has been publishing detailed annual monitoring reports from 2016 onwards, which, together with the rate of change in customer gateway registrations, will help to assess the changes in the number of customers opting for e-government in central public administrations.

According to the reports, the number of case initiations via Web Assistant increased slightly in 2020 and significantly in 2021.

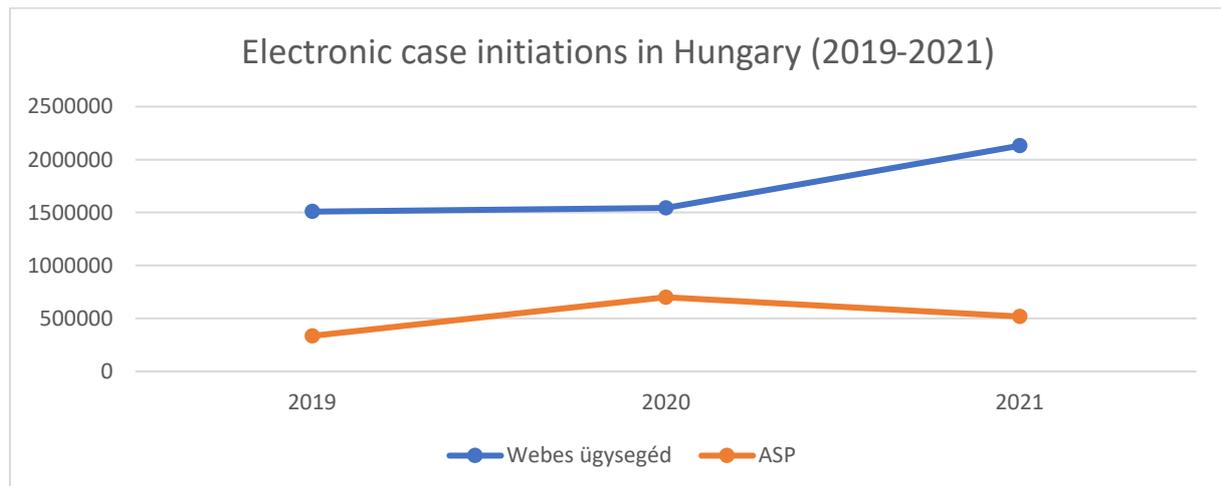


Figure 1.

The number of case initiations via Web Assistant and ASP (2019-2021)

Author's own figure

No public data is available on the number of customers who have submitted their cases through the ASP OHP interface. As part of the research, I contacted the Hungarian State Treasury, the operator of the ASP system, to obtain the data. According to the records of the Hungarian State Treasury, the number of customers initiating cases through the ASP OHP platform increased significantly in 2020 compared to 2019. By 2021, we witnessed a slowing down of this tendency, although it did not fall back to 2019 levels.

5. Experience of a survey

As we have seen above, ASP OHP is only one form of the available systems that enable electronic case management. The ePapír service, which is also open to municipalities, can only give an accurate picture of the cases opened, due to the absence of a register, if we contact the municipalities directly for data. I was able to reach over 2000 municipalities with my questionnaire and received evaluable responses from 148 of them (close to 5% nationally). 125 of the respondents are villages, 19 cities, 3 cities with county's rights and one capital district. The distribution of municipalities is close to the national distribution of the kinds of municipalities (2809 villages, 322 cities, 23 cities with county rights, 23 capitol districts). Given that responses were received from all NUTS-2 regions, the questionnaire survey can be considered statistically representative. It is important to note that, in order to avoid bias, in the case of municipalities with a joint municipal office, I asked respondents to indicate the administrative matters under the competence of the notary in relation to the municipality in which they are based. The first question asked to what extent the municipalities perceived a change in the number of electronically filed applications in 2020 compared to the previous year. Most municipalities experienced an increase of between 1% and 25% in this respect, with only 43 municipalities reporting no change in the number of applications received electronically. Seven municipalities reported an increase of more than 51%. Six of these municipalities had city status and one of these municipalities had village status. Only one municipality reported a decrease in the number of applications submitted electronically, ranging from 51% to 75%.

In 2021, the number of applications submitted via ASP would suggest that since fewer electronic applications were submitted there was a slowing down. However, the survey data seems to contradict this assumption. As compared to the previous year, the numbers did not change in 43 municipalities. 14 of the municipalities that have experienced a change, now report an increase of 51% to 75% in their area. No municipality reported a significant decrease in the number of applications received electronically, but 16 municipalities reported an increase of more than 51%, 10 of which are villages.

6. Findings and conclusions

Preliminary to the research, I made two hypotheses. The first hypothesis was confirmed based on the above studies, as both the number of applications submitted through the ASP-OHP interface and the questionnaires returned by municipalities reported a higher number of case initiations in 2020 and 2021 than in 2019.

My second hypothesis could not be confirmed based on the available data on the grounds that the number of applications submitted through ASP-OHP in 2021 decreased slightly compared to the previous year, nonetheless municipalities still perceived an increase. This may be due to the growing popularity of ePapír, which is easier to use than ASP-OHP. However, I do not have available data on the number of applications submitted to

municipalities and their offices via ePaper, so a comparison with central administration is not feasible without knowing the actual figures.

7. Problems and further research opportunities

A key problem identified in the research was the lack of public access to data on eGovernment. If the relevant data are not made public, the research work will be hampered. What is clear, however, is that the ASP-OHP system is used by a small percentage of the population who prefer the simpler, less formally binding ePapír. Given that the ePapír existed before ASP-OHP, the question arises whether and to what extent the setting up of ASP-OHP can be considered a success after all. The data gathered in the course of the research show that the system has not necessarily lived up to expectations, despite the considerable professional and financial investment made.

In my view, it would be advisable to rethink the eGovernment system and to focus in the future on the wider uptake of ePapír and on the development of simpler, more user-friendly systems.

In addition to the research findings presented in this paper, it may also be important to look at e-administration from the perspective of users, i.e. customers. What kind of e-administration system would customers prefer to use, and under what conditions? What are the perceived barriers to accessing eGovernment? Only further research can provide conclusive answers to these questions.