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The technical-technological development of the Hungarian public administration system in the first two decades of the XXI. century

Theses of PhD dissertation

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Content

I. The aim and subject of the dissertation

My dissertation is the result of nine years of research, a summary of my professional work so far. The original aim of the research was to examine the development and modernization of the Hungarian public administration, focusing mainly on the science of law and public administration. However, due to the multidisciplinary nature of the topic I chose, I came into contact with newer and newer disciplines during the research - and thus also in the dissertation, which I also included in this work. During the processing of these, I tried to keep in mind my original goal and to involve the (other) disciplines concerned only to the extent topic, that I considered necessary for the successful implementation of the study. When choosing the title of the dissertation, I tried to refer to both the legal content and the administrative subject, without putting the role of the most emphasized technological tools in the background. Based on all this, I present the dissertation due to the decisiveness of the legal, administrative science and info-communication technology approach, as a result, achieved in these fields.

Given all this, the subject of the dissertation was originally a various aspects of the modernization possibilities of the "Hungarian public administration", but as the research progressed, I found it more expedient to extend my research to a more dogmatically right conceptual field, to the technical-technological developments. Concerning public administration, I consider technical-technological development, as I will explain in detail later, to be a broader concept than modernization, which also includes the processes and achievements of rationalization. In this way, I got a much broader, more complex subject of study.

Thus, in the dissertation, I analyzed the implementation of the administrative developments interpreted in this way, specifically only in the XXI. century and its implementation only by technical means, in line with the original aim of the research. I considered it reasonable to limit the analysis to today's internal processes because this complex phenomenon is diverse enough to lead to scientific results that can be evaluated even in a relatively closed system. At the same time, I am well aware that domestic phenomena cannot be interpreted in isolation, it is necessary to examine and interpret them in the light of larger-scale processes taking place in an international environment. In this respect, the European Union (hereinafter: the EU) and its regulatory environment, development programs and EU law provide the background in which I was able to reach systemic findings. The specific subject of the research was not the detailed examination of the legal system and public administration development solutions of the individual member states of the European Union, however, some national and international

good practices and achieved results were processed in order to evaluate the Hungarian results in a comparative way.

The chosen research topic, as I have already mentioned, is complex, involves several disciplines and allows for a comprehensive examination of them in the light of administrative modernization. It is, therefore, necessary to apply a further narrowing within the field of "law and administration" after the boundary of the scientific field. I focused on the development possibilities, the applicable technological innovations because here we can make truly "tangible" and forward-looking statements, including the de lege ferenda proposals. I also considered it necessary to apply a narrowing between the individual administrative areas, if only because all sectors in Hungary now use modern info-communication technology tools. Thus, in the course of the study, I focused on those areas of Hungarian public administration that are most sensitive to technical-technological developments. Thus, I examined the following sectors, among others: documentation, construction, health, nature and environment, agriculture, law enforcement and hunting. I would definitely like to highlight the management of hunting, which is not only the most important part of my dissertation in terms of its scope, but also one of the most valuable to me due to my de lege ferenda proposals based on my own experience. My leadership positions in hunting NGOs and as well as the contact system and information - I gained as a result - and my own practical experience contributed to the elaboration of my proposals related to hunting administration. My theoretical experience gained during the research and my practical experience gained through my participation in the hunting society were incorporated into my dissertation.

Although the administration falls within the competence of the Member States, I could not ignore the relevant administrative mobile applications of the European Union or the regulation on drones. In examining these areas, I have been able to make several findings.

Extracting the essential information and experience from these, I came to the assumption and hypothesis that with the help of the currently available smart tools we can make certain areas of public administration more efficient and customer-friendly, which will affect the social perception of public administration on the one hand and customers on the other. situation. The attitude and attitude of customers to administrative procedures is an important element of the concept of the service state. Expanding public administration through smart devices can, therefore, make the state more efficient and popular.

The two most important elements of smart solutions for my research would be the development and introduction of applications optimized for smartphones for administrative purposes, and the other would be the daily, routine application of drones in certain areas of administration. In

connection with this, I can formulate my further hypothesis, according to which smartphones are the devices that are currently available to the largest number of customers, with the help of which, using them, they can be part of an administrative, legal relationship.

The areas of administration presented can serve as an excellent example, a model to follow for other sectors of administration, and can encourage the legislator to speed up - in my view, is inevitable - modernization processes by involving additional resources.

In summary, the dissertation focuses on the possible future breakout points in addition to the inventory of Hungarian public administration development stations and seeks the answer to what processes and programs we can talk about the technical-technological development of the Hungarian public administration today. The structure of the dissertation is adjusted to this, which, starting from the general development, modernization and rationalization processes, reaches the applicability of technological innovations in a narrowing circle from the top down through the reorganization of the Hungarian public administration system.

II. The structural structure of the dissertation

My dissertation can be divided into five chapters after the initial thoughts and then into the final thoughts. In the introductory part, I defined what was the purpose of my research, what methods I used, and what hypotheses I formulated.

In the first chapter, I tried to present the historic events that were important to me from the point of view of the development of the Hungarian public administration system. Here I covered all the development directions started by Zoltán Magyary, paper-based developments, organizational solutions, new trends (e.g. NPM), and then I reached the development trend of today.

In the second chapter, I briefly presented the main stages of the change of the organizational system of the Hungarian public administration in the XX. and XXI. century, but of course, I put more emphasis on the recent period, especially concerning the organizational changes that took place after 2010.

In the third chapter, a brief description of the complex organizational development programs introduced after 2010 was given. There has been a constant change of attitude in public administration over the last two decades. Public administration emerged as a service and the state as a service provider. This change - in approach - was complemented by institutional reorganization and centralization, which aimed to achieve significant efficiency-enhancing mechanisms on both the front-office and back-office sides, with a focus on customer-centricity

is one of the main profiles of the service state. I also examined the Hungarian programs (I. and II.) and the Public Administration and Public Service Development Strategy for 2014-2020.

In the fourth chapter, the ICT tools -applicable in public administration - became into the focus of my research. In today's advanced, information-based societies, there is an increasing pressure to innovate, based on the development of information and communication technologies. Based on the experience of intelligent applications introduced in the commercial, economic sector, the advancement of knowledge and the identification of precise user needs is of paramount importance both before design and implementation. Therefore, the implementation and development of m-government (mobile public administration) would provide mutual benefits for both customers and government bodies. At the same time, we need to see clearly that the adoption of smart-phone applications is still at a very early stage in the public sector, and most government actors are still merely experimenting with the possibility of expanding the provision of services with smart-phone applications.

At the same time, there is no doubt that in order to implement successful, long-term developments, the possibilities of using intelligent applications and the quality of the services provided in them must be continuously improved. With the increasing penetration of smartphones and the growing use of smartphone applications in public administration, it is expected that this new communication channel can contribute to a more open and successful public administration than public service delivery by improving efficiency, transparency and civic engagement. In my opinion - in addition to the smartphone applications - there are additional possibilities at some specialized administrative bodies of the Hungarian public administration, so that other excellent tools can also facilitate the activities of the authorities. One of the most essential techniques and development tools of the 21st century is the range of drones, developed initially for military purposes. In my opinion, this tool can be used in several administrative areas (some of which have already begun), which I have presented in detail in the next fifth chapter.

The fifth chapter of my evaluation became the largest in terms of scope, as it was here that I tried to look for good practices in each area of specialization, where the use of the presented tools (smart phones and drones) had already started. As part of this, I also dealt with law enforcement, nature conservation, documentation and hunting administration without claiming to be exhaustive. I have sought to formulate forward-looking, innovative solutions for representatives of each area, particularly with regard to hunting management.

As a last unit, my final thoughts and conclusions were recorded in my dissertation. I highlighted the main points, that I considered as the most important, and I also formulated de lege ferenda proposals and I attached my specific ideas for amending the legislation in a table.

III. Sources used in the research, applied methods
III.1. Range of resources used

In the following, we briefly describe the range of sources used, and then we present the research methods used in the preparation of the dissertation. During the preparation of the dissertation, I relied on the relevant legal sources (sectoral laws, regulations), the literature base, online press products, as well as legal practice and expert practice.

In the field of legal sources, the Hungarian legal environment and the Hungarian literature enjoyed supremacy, however, during the research, I examined not only the current legislation, but also the previous legislation and development programs several times. In addition, consultations and professional visits to public administration authorities and non-governmental organizations - operating in specific fields of administration - gave a great help to me, during which I had the opportunity to gain practical experience that was very useful for open research.

III.2. Methods used in the research

During the preparation of my dissertation, I tried to combine my research work with the methods of describing and analyzing the phenomena, with a critical and comparative approach, in order to achieve research results that are supported from as many sides as possible. I also considered, that it is important, because judging the applicability of the technical-technological tools at the heart of my research in public administration is quite divisive among researchers and practitioners.

Accordingly, although the aim was primarily to examine individual areas of expertise, I sought to draw resources from the broadest possible range. As a result, the sources I used, included many works in foreign languages, that did not directly analyze Hungarian conditions. I compared the processes and right solutions too, I got to know with the Hungarian conditions using the comparative method. This is especially true for cases, where there are already working applications that can be apostrophized as "good practice".

In the course of my research work, I did not want to present the results of the areas that had already been explored and published with sufficient thoroughness, but I used them to focus on exploring possible directions for the future. I examined the individual areas of administration in the light of how the new - mainly "smart" technology - tools could be used effectively in the day-to-day performance of the Hungarian public administration system in order to make it more efficient and customer-centric.

The analysis was multi-layered, as in addition to examining the regulatory environment, it was also necessary to study specific tools. It was necessary to know exactly what possibilities are inherent in these tools at all, to what extent they can be utilized for the administration. During personal interviews with professionals, I was able to hear several negative opinions about each of the solutions, which provided a basis for making critical remarks. As a result, I tried to formulate solution solutions that - even in the present conditions of the Hungarian public administration - could be able to achieve the goal, which is nothing more than to make the administrative services more efficient for the customers.

I also considered the historical method important, which, however, does not end with the fact that at the beginning of the dissertation, I outlined the administrative development processes and their formation. Although the dissertation basically examines the current legal situation, in the course of the analysis of the particular topics - where relevant - I flashed the previous legal regulation and the development curve of the individual legal institutions.

Although the dissertation is not a comparative work, I used the comparative method in several parts of it, which appears in the dissertation where we consider the samples of foreign countries - in this case, the European Union - relevant or to be followed, and we compare them with domestic regulations. At the same time, it is important to emphasize, that I did not aim to compare the individual institutions in the whole system, but to review the same or similar institutions and solutions of the examined systems. At the same time, I did not want to place more emphasis on foreign examples than necessary, as I mentioned, the dissertation focuses on the Hungarian public administration system.

Finally, among the methods used, I consider it worth mentioning the empirical method. Many of my professional relations with administrative and non-governmental organizations (especially those involved in hunting administration) helped me a lot in the research, so during the interviews and consultations, I received answers to many questions for which I did not find sufficient guidance in the literature. As a result of professional collaborations, I was able to gain insight into specific areas of use and be convinced of my previous view that the use of

smartphones and drones does not lack in practice, but because in most cases the lack of necessary resources and appropriate regulatory environment does not allows.

IV. Summary of research results
IV. 1. Applicability of smartphones

The growing popularity of smartphones is undoubtedly one, if not the most important factor in widening the process of administrative application of smartphone use.

Given people's smartphone usage habits, one of the key benefits is that smartphone apps make their everyday lives more comfortable. We can think here of communication activities, as well as information transmission, taking photos and GPS-based positioning and navigation services. Besides, the information coming from the smartphone app is more structured, more precious than the information coming through the other channels, especially the email channel. The free text style of e-mail channels usually provides incomplete information about governments, administrations, so it may often be necessary to request additional information through some channel or even in personally.

Lower costs over telephone calls are also a significant advantage for smartphone applications, which is also a primary consideration given a large number of potential customers (citizens with smartphones). If we compare the use of applications with a telephone administration service, we can soon see that - due to the growing service clientele - the workload of the administrators may also increase. In contrast, the mobile phone application is a quasi-"self-service" channel that is fully integrated into the system. This integration into the central system means additional cost savings, as collecting structured data and information in this way is also an advantage, and the customer saves money by eliminating the obligation to appear on site and assessing any problems that may arise there.

Smartphone applications allow citizens to initiate, submit a request, launch a procedure anytime, anywhere, which has a significant, mainly time- and cost-saving advantage over other communication channels. Citizens can also report problems immediately if they notice them, as their mobile phones are usually with them, but their computers are far from certain. It can be a kind of change of attitude for customers to be able to take action on their smartphone, not having to go back to their home or work to contact authorities. This is because, if the administration requires more energy and time from the average customer is less likely to do so. Combining the benefits of mobile phones and web applications, online services can be accessed

without geographical restrictions, which can also mean expanding the range of services available to public administrations.

In the case of administration through applications, there is the possibility of a time advantage, as there is no waiting time for citizens compared to the telephone communication channel. Just think about it, in the case of smartphone administration, the administration time is almost the same as the personal administration time, we can only save the travel time. However, handling the case takes at least as much time as we have to wait for the clerk, processing the requests, and so on. As smartphone applications are integrated into the central system (s), applications can be sent directly to the competent authority, thus not only saving costs but also increasing the speed of application processing. This can be of great significance, especially in the event of an emergency, a disaster, but it is not the last consideration in ordinary cases either. I believe that today's events perfectly support the applicability in the case of disasters and emergencies. In case of epidemic situations (e.g. COVID-19, a new type of coronavirus), this communication channel can not only be convenient, fast and practical but also justified from a health point of view, as personal encounters can be reduced and triggered in this way minimized. Furthermore, the spread of viruses can be greatly reduced.

IV. 2. Applicability of drones

Of course, the areas of use I have presented in my dissertation - by no means ultimately - do not show 100% the extent to which these tools may be relevant. One of the reasons for this is that new and new areas are continually emerging, where the devices can be used at a low cost without risking human life. One of the - interesting - consequences of their unquestionable popularity is the continuous development tendency, and that goods are steadily decreasing, but their range and equipment are continually increasing. It will be an essential circumstance in the long run how acceptable society will be to these tools and how willing it is to exploit the potential that lies in them. We are living in days of open debate about the usability of drones, where there are many voices, that shows their fears, when they try to restrict or possibly ban the use of these devices by invoking data protection rights. I did not deal with the private law aspect of drone application in the present research. The priority was to examine administrative modernization, which serves the goals of society as a whole, as opposed to the potential violation of the personal rights of an individual. Of course, I am also aware that a well-functioning and practical usability requires a high level of social acceptance and an appropriate legal environment in which certain aspects of private law must also play a role.

IV. 3. The e-Hunting Diary

One of the biggest focus point of my research, is the hunting management, as I am a practising hunter and a senior official in organizations involved in hunting management. An essential element of the hunting is the enrollment into the hunting area, which is currently done in a hunting log, which was pre-certified by the authority. In connection with this, there is a new need for an online version, which has several advantages, that I presented in detail in my dissertation. This would be based on a computer database to which those entitled to hunt would connect, providing all the necessary information for the authorities (hunting inspectorate, competent police station) and the system for each hunting unit. Smartphone applications and technologies clearly enable accurate, digital mapping on the basis, which can create a reliable, fast and efficient system. In addition to the connection of those entitled to hunt (hunting societies, companies), another very important condition is that hunters also register in the system and download an application specially developed for this purpose on their smart devices. Enrollment in the given hunting area could be done through this application, similarly to the traditional procedure, by specifying our name, hunting area, the starting date of the hunt, and by indicating any accompanying personnel (unarmed). After enrollment, both the other members of the hunting group and the competent authorities can immediately see how many hunters are in the area (with an accuracy of up to a few meters, thanks to the GPS transmitters found in smartphones). However, I believe that hunting, as a hazardous activity, definitely requires more transparent, information-rich solutions. One of the most useful elements of this would be the e-entry book, with the use of it, the following fundamental objectives and tasks would be realized:

➢ the efficient, fast (immediate) flow of information between the parties involved (members of hunting associations and authorities), up to 24 hours a day in 2 directions,

➢ an effective solution to curb poaching, thereby increasing public safety by facilitating the work of the police,

➢ protection of wildlife from disturbing and damaging activities by unauthorized persons (e.g. antlers, illegal dumpers, unauthorized motorcyclists).

Signing in a traditional paper-based entry book, a hunting diary, is difficult to replace. I believe that this could be handled perfectly even with customer gateway registration, which may be even more reliable than signing. I based this statement on the fact that, as a hunter, I had

encountered numerous times when, at least presumably, it was not signed by a hunter engaged in particular hunting activity, that is, enrolled, but done by someone else instead. In addition to logging in to the Customer Portal outlined so far (entering a username + password), in my opinion, the biometric identification described in one of the previous subsections (identification options) could also be used. The vast majority of smartphones on the market today - in the case of new devices, this is true - are capable of fingerprint-based identification, and some are already capable of recognizing iris, retina, and face. I find the applicability of fingerprints from the property-based identification methods feasible.

The realization of the official applicability of the e-entry book I have outlined, is not yet visible in time. At the same time, there has been a demand from hunting associations to use such a system, not in an officially accepted way, but to facilitate their internal administration and control.

In the course of my research, I have concluded that the legal environment (the Hunting Act) should allow for equivalent the enrollment in a "traditional" hunting log certified by the hunting authority and this solution as an e-log. It is necessary to lay down equivalent enrollment alternatives not only in the law but also in its implementing regulation. In my opinion, the solutions presented by me can excellently support game management activities, which I tried to point out in my dissertation during specific tasks to be performed.

V. Publications related to the PhD dissertation

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2. SZABÓ Balázs: Azonosítási módok az elektronikus közigazgatásban (In.: Infokommunikációs jog – Miskolci Egyetem 2018)

3. SZABÓ Balázs: Mobil-applikációk alkalmazási lehetőségeinek vizsgálata az egyes szakigazgatási területeken (Pro Publico Bono 2018/1., Budapest NKE)

4. -SZABÓ Balázs: IKT eszközök alkalmazási lehetőségeinek vizsgálata szakigazgatási területeken (Pro Publico Bono 2017/3., Budapest, NKE)

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