DIGITAL TRANSFORMATION OF THE BUSINESS REGISTERS AGENCY IN THE FUNCTION OF THE MODERN DIGITAL SOCIETY

ABSTRACT: Digitalization strongly affects the economy and society as a whole in different dimensions. The process of digitalization of the Business Registers Agency, including the registration procedure of business entities, is one of the priority tasks aimed at increasing efficiency and economy as well as economic prosperity in general. Certainly, there is a prerequisite referring to the existence of digital literacy, which is not an isolated category, but rather a superstructure of earlier forms of literacy. It is undeniable that every innovation arises as a privilege of the higher social classes, which, by inertia, turns into a need of the others. In this paper, it has been analyzed the legislative framework of electronic registration of business entities. Starting from the point of view that economic growth, competitiveness on the market, and socio-economic development represent the nowadays necessity, the authors, through this paper, primarily try to define the achieved progress of the work of the Business Registers Agency (BRA) in registering business entities in the digitalization process. The quintessence of this work is the identification of the availability of digital tools for the registration of economic entities, as well as their quantification and qualification.
Keywords: digital society, the Business Registers Agency, registration, digital economy.

1. Introduction

Dynamic business conditions as a prerogative initiate constant changes and the implementation of digitalization as a business orientation of all market participants. The digital world is no longer characterized as a revolutionary phenomenon but is seen as a permanent state of evolution. The proliferation of the Internet has had a great impact on society. Therefore, it is unquestionable that the Internet represents the key to communication and the information infrastructure that primarily dictates the pace of work. While factories were the trademark of the industrial revolution, the emblem of digitalization is the symbiosis of information and computers. The potential brought by digitalization has created space for the advancement of the digital economy at the micro and macro levels. The core of digitalization is the transformation of business processes, which starts linearly from digital communication, where it is also the most noticeable. As the digital revolution unfolded, the digitalization of the economy accelerated networking and information exchange but also encouraged international engagement. The rise of the digital economy is parallel to the growth of the networked society. The trend towards the globalization of innovation is part of the general tendency of business entities to acquire technology externally and to cooperate with other companies, universities, and public research organizations, in addition to internal investments in research, development, and innovation activities.

The discourse of the defined research rests on the deductive analysis of the Business Registers Agency digitalization, which is reflected in a better understanding, and in increasing the degree of practical use of the electronic registration of business entities.

The digitalization process of the business entity registration procedure must be carried out by the current legal regulations. It is of crucial importance to consider the extent to which the existing legal regulations enable the effective implementation of this procedure. The subject of the research paper is the analysis of the relevant legislative framework for the corpus of issues regulation related to the electronic registration of business entities in the Business Registers Agency. The purpose of the research is in direct correlation with the subject of the research, that is, the identification of current legal regulations, as well as the recognition and analysis of relevant legal issues related to the digitalization of the registration of business entities. The theoretical
and professional analysis of the electronic registration of business entities will indirectly reflect the enormous role of digitalization in the development of the economy and economy, as well as raising the public services quality level.

2. Research methods

Following the chosen issue, the applied research methodology is based on legal-dogmatic and empirical methods.

The legal-dogmatic method implies a normative analysis of the positive legal regulation, which has as its subject the registration of economic entities, as well as whether the established legal framework is suitable to respond to the challenges of digitization. The normative analysis goal is the conceptualization of the Business Registers Agency digitalization, as well as the procedure of registration of business entities using digital technology, as abstract concepts.

The empirical part of the research includes relevant and available data analysis on the registration of economic entities by the method of direct observation on the Business Registers Agency website, to draw relevant scientific and professional conclusions about the identification of digital elements that are part of the Agency’s work.

3. Results

The level of digitalization integrated into the business entities’ work processes varies. Some countries have digitalized the entire life cycle of the company, while in others physical presence before the competent authority is necessary, at least once.

The sedes material for the considered area is in the Law on the Procedure of Registration in the Business Registers Agency. Through the normative analysis of the relevant regulations, it was established that the procedure for registering business entities and the register is under the competence of the Business Registers Agency, which represents an electronic and centralized database. The Business Registers Agency was founded in 2004. Thus, the reform implementation of the system of registration of business entities in the Republic of Serbia started, to harmonize its legislation with European standards and pave the way for foreign investments and economic prosperity of the Republic of Serbia. With this, a transition was made from the judicial way of keeping the register to a centralized, administratively more rational, and efficient one within the Agency. Furthermore, the system of financial leasing registration and liens on movable property and rights was established. One of the relevant
characteristics is that the Business Registers Agency does not enter the budget of the Republic of Serbia, which reflects the principle of self-sustainability of public functions, with the simultaneous relaxation of the state budget.

The Agency is responsible for maintaining several registers as unique, centralized, and public databases, which opens the door for state bodies and institutions to be informed in one place about the relevant data of registered business entities.

It is of fundamental importance to mention the Directive on the use of digital tools and processes in company law, based on which the establishment of companies and their registration, reduced costs, time, and administrative burdens associated with those processes have been simplified. According to the Directive, each country should decide which procedures to do online when establishing business entities. Certainly, the current costs and burdens associated with the establishment and registration procedures arise not only from the administrative fees charged for the establishment of a company or the registration of business entities but also from other requirements that make the overall process longer to complete, especially when the physical presence of the applicant is required. In addition, information about such procedures should be available online and free of charge (Directive 2019/1151).

Digitalization provides electronic access to the database, which facilitates access to important data. By establishing an integrated database, state authorities, as well as other institutions, have been provided with the use of concise and complete data and information in one place for analysis, diagnosis, and creation of fiscal and monetary policy. It certainly contributed to the economy, efficiency, and transparency of keeping the register. By creating the website of the Business Registers Agency, registered data and documents could become public and accessible to all persons.

Configuring a corporate and stable framework for the registration of business entities contributes to the unification of the business market. In 2011, the Republic of Serbia adopted the Law on the Procedure of Registration in the Business Registers Agency, with the latest amendments from 2021 (hereinafter referred to as the Law). With the adoption of the Law, the procedure for registration, recording, and publication of data and documents is regulated by legislation, which, under a special law, is the subject of registration, records, and publication in the registers and records maintained by the Business Registers Agency.

Electronic registration of business entities was made possible for the first time in Serbia through the Business Registers Agency in 2017. It primarily meant only the registration of entrepreneurs, and from the end of
2018, the registration of the establishment of a single-member limited liability company, while in 2019 this possibility was also allowed for a multi-member limited liability company. According to Article 9 of the Law, the application for registration of business entities can be submitted electronically, in addition to the regular paper form. The novelty of crucial importance, which the Law brings by prescribing paragraph 2, in Article 9, refers to the establishment of a business company, for which the application for the establishment will be submitted exclusively in electronic form in the future. The Legislator’s motive for such a change is manifested in the need to digitalize the economy, among other things, through the e-government platform.\footnote{\textsuperscript{1}}

The entire mindset transformation was carried out by configuring the software solution, which enabled the submission of electronic applications. The concept of the digital economy requires continuous growth and innovation in the work of economic entities, which directly excludes the perverted and slow work of the state administration.

Through the normative analysis of the Law on the Procedure of Registration in the Business Registers Agency, it is established that the electronic application for registration is made through a user application. By the user application, electronic documents are securely received, including proof of payment of the registration fee. Signing the electronic application is done by electronic signature.

According to the deductive analysis of Article 2, paragraph 1, of the Law on Electronic Document, Electronic Identification and Trust Services in Electronic Business, an electronic signature represents a set of data in electronic form that are associated or logically connected with other signed data in electronic form so that it is confirmed by an electronic signature the integrity of that data and the identity of the signatory. The information required for the creation of an electronic signature is the identified data of the signatory for the creation of an electronic signature logically connected with the corresponding data for the validation of the electronic signature. When the electronic application is received, the electronic signature is validated. Validation is the procedure of checking data related to the correspondence of the electronic signature with the signed data. Validation of the qualified electronic signature on the application or documents is performed according to the time of receipt, i.e. the time of loading the documents into the user application and is confirmed with a qualified electronic time stamp. The legislator standardized the qualified

\footnote{\textsuperscript{1} It is a process that takes time to implement, which is why the implementation of this solution has been postponed until May 17, 2023.}
electronic time stamp in the Law on Electronic Document, Electronic Identification and Trust Services in Electronic Business, which is issued by the provider of the qualified trust service, as an official time attached to the data in an electronic form confirming that the data existed then.

With the adoption of the Law on Amendments to the Law on the Procedure of Registration in the Business Registers Agency on 16 November 2021, the Legislator prescribed that the digitalization of the document and the confirmation of identity to the original required for the registration procedure, in addition to the persons established by the Law on Electronic Documents, Electronic Identification, and Trust Services in Electronic Business, can also be performed by a lawyer registered in the lawyers’ list of the Bar Association of Serbia. With his electronic signature, that is, with a qualified electronic seal, he simultaneously signs the application with which that act is submitted. On that occasion, the lawyer signs the application with his electronic signature, i.e. with a qualified electronic seal, at the same time. The lawyer is obliged to keep the original act, i.e. the document that he digitalized and submitted to the Business Registers Agency, as well as the digitalized act itself. An enormous number of registration applications are submitted to the Business Registers Agency by lawyers on behalf and behalf of their clients. To increase the efficiency of the registration procedure and create better conditions for electronic registration, this type of authorization was entrusted to lawyers.²

In Article 24 of the Law, the legislator stipulated that the delivery of the written notice of the registrar’s decision is done at the request of the applicant, and for information, in alternative ways: by mail, by sending it to a registered address for receiving electronic mail, by picking it up at the headquarters of the Business Registers Agency or its organizational parts. However, if an electronic application is submitted, the registrar’s decision in electronic form is sent to the registered address for receiving electronic mail or to the address for receiving electronic mail indicated in the application. In addition to the above, to users of the electronic administration service registered by the Law regulating electronic administration, delivery is made exclusively to the Single electronic inbox.³

Harmonization of the Companies Law was carried out in 2021, whereby according to Article 11, paragraph 3, it is prescribed that there is no obligation to certify the signature in a digitalized document, as it is replaced by a qualified electronic signature.

² Attorneys have the opportunity to certify digitalized documents from November 17, 2022.
³ The implementation of the provisions related to submission to the Single Electronic Pad has been postponed to May 17, 2023.
Through the normative analysis of the Rulebook on Validation of Qualified Electronic Signatures and Qualified Electronic Seals, it was determined that the system used for validating a qualified electronic signature includes an installed validation application, within which validation is implemented and a management application through which the relying party initiates and obtains the status validation and validation report.

The Republic of Serbia has adopted the Capital Market Development Strategy for the period from 2021 to 2026 to increase the degree of competitiveness, efficiency, transparency of work, as well as market productivity to provide a range of products and services at the highest quality level. By creating a unique central database, the Republic of Serbia indirectly influenced the increase in attractiveness, accessibility, and education of economic participants in the market, strengthening the principles of efficiency and economy.

The development of IT is a way to reduce costs. The implementation of digital services would enable the reduction of operating costs and the increase of energy efficiency. Digitalization of business today is imperative and the benefits obtained from digitalization come as a multiple-return investment. The necessity of digitalization and modernization of work is reflected in maintaining competitiveness in the market. The empirical part of the research consists of the Business Registers Agency website content analysis. One of the benefits of registering business entities using digital technology is its economy. Of course, all applicants pay the registration fee, but electronic applicants pay 4,500.00 RSD, which includes the registration fee and publication of documents of importance for the establishment, as opposed to a regular application by submitting a paper form, where applicants only pay a fee in the amount of 4,900.00 RSD, without other externalities.

The Government of the Republic of Serbia for the period 2020-2023 adopted the Program for improving the position of the Republic of Serbia on the World Bank’s ranking of business conditions – “Doing Business”, which would result in the foreign capital attraction. According to the data of the Program, in the global ranking regarding the area of starting a business, the Republic of Serbia is currently in 73rd place, although it is only 10.70 points away from the ideal position. The goal of this program adoption is to improve the process of establishing a business company, as well as to standardize and reduce costs in the process. In the aforementioned attachment, the Republic of Serbia adopted an Action Plan for improving its position. According to the Action Plan, changes were made to the Identity Card Law, whereby the Legislator legislated that the electronically qualified certificate is an integral
part of the identity card (ID). Therefore, when issuing an ID card, a qualified electronic signature is also issued at the same time, because the keys required for the electronic signature are integrated into the chip of the ID card.

Through empirical research, it was observed that the Agency regularly updates all regulations, by-laws, and instructions on individual procedures related to its business on its website. Furthermore, prescribed forms are regularly published and updated, based on which online registration and record-keeping procedures are initiated. In support of what has been said, on their website you can find the most adequate examples of acts that can be models for creating the documentation needed for the registration process.

The advantage of database digitalization contributed to the fulfillment of the publicity principle and the availability of data and documents from the register. The Agency, as the owner of the software used to manage the registers, has enabled free access to data from the register, both to users and to third parties, through public data search.

The agency collects information about users, such as the domain name, IP address, and URL address from which the Business Registers Agency website was accessed, as well as the date and time of access to the website. Also, the right of the Agency is to monitor all traffic on the network to identify unauthorized attempts to change the content on the site as well as other illegal activities. The Agency must prevent any kind of abuse in the use of the site and the denunciation of information during the registration of business entities and take care of security protection, integrity, and functionality of databases.

The research showed that it is necessary to ensure the public availability of official records of issued permits and other acts, which are a prerequisite for registration. Above all, it is necessary to provide Business Registers Agency with access to criminal records and records kept by tax authorities.

4. Discussion

The fundamental basis of the successful operation of the world economy and business entities is the stability and certainty of global, regional, and local markets. Without business stability and security, world and regional economies, as well as market participants, cannot operate progressively and successfully (Mirković & Stojšić Dabetić, 2020, p. 55). The period of registration of business entities is identified with the new phase of the technological revolution, equating its importance with the emergence of the Internet (Goforth, 2021). The development of the Internet, which provides the basis for the emergence and development of electronic business, enables access
to relevant information in different digital forms in the business function of all economic users (Skorup, Krstić & Cogoljević, 2013). There is an aspiration to shape the Internet in the form of a unique and open platform for its users, which is of particular importance for economic entities, to achieve economic development and social progress.

The term digitalization implies the mass use of IT, communication, and all types of electronic commerce (Jašarević, 2016, p. 1104). The incremental changes brought about by digitalization have created opportunities for economic growth, but they will inevitably cause economic dislocation. The anticipated effect of digitalization will redefine many roles and business processes, which will change the dynamics in many processes, which will consequently lead to the expansion of new markets.

The exponential speed of development, the disruption in all major industries, and the pervasive impact on production and management systems are what distinguish this development from the previous industrial revolution. Despite all the advantages, the digital revolution also carries certain risks. With adequate guidance, it has the potential to spur innovation on a global scale (World Economic Forum, 2016). Information and communication technologies (ICT) are the backbone of this revolution, whose continuous development directly affects economic changes. Economic and political imperatives combine with technological innovation to fuel the growth of the digital economy (Bukht & Heeks, 2017, p. 20).

The digital economy, as an economy that functions primarily through digital technology, influenced the creation of the concept of digital business transformation (Kahrović, 2021, p. 141). Digitalization involves a key transformation of business and affects processes and organizational structures. Society as a whole is faced with accelerated and radical changes caused by the maturation of digital technologies and their penetration into the market. The transcendence of the digital economy creates space for the successful performance of business operations without the obligation of physical presence. The convergence of digitalization and liberalization of economic policy has provided a foundation for companies to provide their services while locations are scattered around the world, thus providing an opportunity for the development of local markets.

Rapid access to information on a global level is made possible by the application of digital technology, which transforms business methods and opens new spaces for the creation of new value (Pitić, Savić & Verbić, 2018, p. 108). Digital technology is not only manifested through individual IT artifacts (such as computers, software applications, mobile phones, etc.), but it also fits
into most other artifacts. Therefore, it results in a world imbued with digital technology (Stolterman & Fors, 2004, p. 689). Digital transformation is a vital topic for companies around the world. It usually involves discussions around advanced analytics, social networks, mobile telecommunications, or similar phenomena. Digital transformation affects business architecture in all areas, which makes business model (re)design vitally important, requiring business leaders to take a systematic approach in this direction (Blaschke, Cigaina, Riss & Shoshan, 2016).

The world has become digital, and so has the economy. In this context, the transformation of the linear economy into a circular economy is needed to increase the sustainability of the digital sector (Stojanović, 2021). The digital economy as a way of doing business uses ICT and the Internet with the use of knowledge from the following fields: economics, informatics, telecommunications, computing, and digital electronics (Spalević, Vićentijević & Ateljević, 2018, p. 30). ICT is considered a vital segment that pervades all spheres of economic activity, erasing national borders (Petrović, 2018). The digital transformation of the economy has led to the creation of new business models, new products, services, and new ways of doing business. Thus, the digital economy is growing at an accelerated pace and is expected to continue to do so in the coming years. An integral component of every society is the economy, which requires a higher degree of compatibility with digital technologies (Dukić Mijatović & Mirković, 2022).

The digital economy is the result of the modification of information and communication technology, which contributed to technologies becoming cheaper and widely standardized, innovating business processes and encouraging innovation in all sectors of the economy (OECD, 2015). The core of the digital economy is hyperconnectivity, which means the growing interconnectedness of people, organizations, and machines resulting from the Internet, mobile technology, and the Internet, while the direction of the digital economy is inclusive.

Globalization is a phenomenon that has provided countless advantages for businessmen and the development of their businesses, but also caused the acceleration of competition, as a result of which companies have difficulty achieving, maintaining, and improving their competitiveness in the market (Bakator, Đorđević, Ćoćkalo, Ćeha & Bogetić, 2021). The use of digital technologies requires a change in the way business entities operate, while at the same time strengthening the competitive position based on knowledge and innovation (Savić, Lazarević, Kukić & Marinković, 2019). Digitalization of company law is necessary, which integrates the use of digital technologies
in the domain of establishment and registration of business entities up to the deletion of a business from the Business Registers Agency (Vujisić, 2019).

By enacting amendments to the Law on the Procedure of Registration in the Business Registers Agency and implementing amendments to other relevant laws in the field of electronic signatures, the Republic of Serbia carried out a curricular reform. Perceiving the Law, the changes aim to reduce the time spent, but also the costs required for the establishment of economic entities, to improve the conditions for starting a business, as well as the necessity of removing legal gaps observed in the application of regulations so far, and following the measures from the Action Plan of the Program for the Improvement of the Position of the Republic of Serbia in the ranking list of the World Bank on business conditions – “Doing Business” for the period 2020-2023.

5. Conclusion

The digitalization process represents a global trend that is perpetuated. Accordingly, it manifests itself as a necessary precondition for the survival of companies in the domestic and world markets. Its influence is reflected in the modernization of the economy, providing enormous opportunities, but also significant challenges for corporate management of companies. The concept of digitalization implies the continuity of cooperation and coordination between entities. By implementing the establishment of a digitalized procedure for the registration of business entities, an interactive record of business entities was created, which increased the agility of further development. The state must invest time and resources of all kinds to implement a digital culture. In all spheres of business, digitalization has enabled accelerated economic growth and development, economic efficiency, competitiveness, and profitability, thanks to the digitalization implementation and electronic connection of business entities, public administration bodies, and citizens. The legislator’s motive for the aforementioned amendments is to save time and reduce the costs of establishing business entities, as well as the continuation of the digitalization of the Business Registers Agency and administration as a whole. Digitalization certainly represents a catalyst for innovation, modernization, and economic prosperity of the state. Successful digital transformation through the development of electronic services of a high level of sophistication is possible with a legal basis in the legislation, which predestined the reform in the domain of the concise legislative framework governing this area. The discourse analysis of this issue refers to the provisions of the Law on the Procedure of Registration in the Business
Registers Agency, especially the changes that will take place next year, and they refer to the possibility of electronic registration of all business entities, which was not the case until now. The Agency represents a representative example of good practice in the organization of public administration, whose work is harmonized with the most modern digital technologies. The research concluded that the operational implementation of digital technologies is still necessary, as well as the building of both internal and external knowledge in the work of Business Registers Agency on regulating the registration of business entities to further modernize business processes, strengthen the service function, and simplify administrative procedures.

**Conflict of interests**
The authors declare no conflict of interests.

**Vasić Milica**
Pravni fakultet za privredu i pravosuđe u Novom Sadu, Univerzitet Privredna akademija u Novom Sadu, Srbija

**Bulatović Petar**
Poslovno-umetnička akademija primenjenih studija u Beogradu, Srbija

**DIGITALNA TRANSFORMACIJA AGENCIJE ZA PRIVREDNE REGISTRE U FUNKCIJI SAVREMENOG DIGITALNOG DRUŠTVJA**

**REZIME:** Digitalizacija snažno utiče na privredu i društvo u celini u različitim dimenzijama. Proces digitalizacije Agencije za privredne registre, kao i postupak registracije privrednih subjekata predstavlja jedan od prioritetnih zadataka koji ima za cilj povećanje efikasnosti i ekonomičnosti, kao i prosperitet privrede uopšte. Svakako da je preduzla postojanje digitalne pismenosti, koja nije izolovana kategorija, već nadgradnja ranijih oblika pismenosti. Nepobitno je da svaka inovacija nastaje kao privilegija viših društvenih slojeva, koja se po inerciji pretvara u potrebu ostalih. U ovom radu je analiziran legislativni okvir elektronske registracije privrednih subjekata. Polazeći od stava da je ekonomski rast, konkurentnost na tržištu, društveno-
ekonomski razvoj nužnost današnjice, autori kroz ovaj rad prevashodno nastoje da definišu ostvareni napredak rada Agencije za privredne registre pri registrovanju privrednih subjekata u procesu digitalizacije. Kvintesencija ovog rada jeste identifikacija dostupnosti digitalnih alata za registraciju privrednih subjekata, kao i njihova kvantifikacija i kvalifikacija.

*Ključne reči:* Digitalno društvo, Agencija za privredne registre, registracija, digitalna ekonomija.

**References**


10. Odluka o naknadama za poslove registracije i druge usluge koje pruža Agencija za privredne registre [Decision on fees for registration and other services provided by the Business Registers Agency]. Službeni glasnik RS, br. 119/13, 138/14, 45/15, 106/15, 32/16, 6950/16, 75/18, 73/19, 15/20, 91/20, 11/21, 66/21 i 129/21


14. Pravilnik o validaciji kvalifikovanog elektronskog potpisa i kvalifikovanog elektronskog pečata [Rulebook on Validation of Qualified Electronic Signature and Qualified Electronic Seal]. Službeni glasnik RS, br. 43/19


21. Strategija za razvoj tržišta kapitala za period od 2021. do 2026. godine [Capital market development strategy for the period from 2021 to 2026]. Službeni glasnik RS, br. 102/21


24. Zakon o elektronskom dokumentu, elektronskoj identifikaciji i uslugama od poverenja u elektronskom poslovanju [Law on Electronic Document, Electronic Identification and Trust Services in Electronic Business]. Službeni glasnik RS, br. 94/17 i 52/21

25. Zakon o izmenama i dopunama Zakona o postupku registracije u Agenciji za privredne registre [Law on Amendments to the Law on the Procedure of Registration in the Business Registers Agency]. Službeni glasnik RS, br. 105/21


27. Zakon o privrednim društvima [Companies Law]. Službeni glasnik RS, br. 36/11, 99/11, 83/14 – dr. zakon, 5/15, 44/18, 95/18, 91/19 i 109/21

113