**BUILDING AND DEVELOPING DIGITAL NOTARIZATION IN VIETNAM IN THE CONTEXT OF DIGITAL TRANSFORMATION - EXPERIENCES FROM SOME COUNTRIES ACROSS THE WORLD**

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***Abstract –*** *The article clarifies the basic benefits of digital notarization for notarization activities in Vietnam. At the same time, it outlines the approach and implementation of digital notarization in some countries worldwide and analyzes the difficulties in implementing digital notarization in Vietnam. It recommends solutions to orient the future construction and development of digital notarization in Vietnam.*

***Keywords:*** *Digital notarization, legal framework for digital notarization, Vietnam electronic notarization, development of digital notarization.*

**INTRODUCTION**

In each country, notaries are regulated to perform functions and tasks that are not entirely similar. However, when studying the history of the formation and development of the notary profession in the world in both the Latin notary system and the Anglo-Saxon notary system, it can be seen that the basic tasks, which are common characteristics of notary activities, are: (i) testifying, (ii) creating evidence; and (iii) preserving and providing evidence. Through these three tasks, notaries are considered to prevent legal risks for organizations, individuals, the state and other relevant entities, contributing to maintaining order and ensuring the common interests of society. The 4.0 industrial revolution has required digital transformation in most areas of social life. For the notary field, digital notarization is an inevitable trend for countries worldwide and in Vietnam. Building digital notarization, aiming for digital transformation in notary activities, the most important goal must be to ensure the implementation of basic functions and tasks of notarization, taking advantage of the power of digital technology to promote more clearly the role of notarization, meeting the increasing needs of society in the period of innovation and integration in science and technology. The birth of digital notarization is considered a breakthrough step in the notary industry. Applying digital notarization can bring many outstanding effects in notary activities and the notary industry compared to the previous way of doing things.

Notarization is an important public service, an indispensable institution for rule-of-law states. The promulgation of the Notarization Law in 2014 laid the initial foundation for legal regulations on applying information technology to notarization activities. However, after nearly 9 years of implementing the Notarization Law, it is recognized that the construction and implementation of digital notarization in Vietnam has not been fully implemented. This situation may be due to many different subjective and objective reasons, mainly because the legal framework for digital notarization has not been officially recognized and built. Some legal regulations with orientations on digital notarization have just been formed and have not yet been effective. In order to overcome these limitations and at the same time contribute to realizing and accelerating the e-Government Development Strategy, the 2024 Notarization Law was recently passed by the 15th National Assembly of Vietnam on November 26, 2024, officially legalizing and establishing more specific legal regulations on digital notarization. The content of the legal regulations on digital notarization is stipulated in Section 3 (from Article 62 to Article 65) of the Notarization Law and will be guided more specifically in the Government's Decree.

In the context of the economy undergoing an increasingly strong digital transformation, digital transformation in notary activities in general and digital notary, in particular, is an inevitable trend to meet the increasing needs of society. The birth of the digital notary is considered a breakthrough in the notary industry. Applying a digital notary not only benefits the person requesting notarization but also the subjects participating in notary activities and relevant state management agencies.

**1. Digital Transformation in Notarial Activities and Digital Notarial**

**Digital Transformation in Notarial Activities**

At the Mediterranean Conference on Information Systems, authors Henriette, Feki, and Boughzala argued that digital transformation is "a process of incremental or discontinuous change. It begins with the adoption and use of digital technologies towards a comprehensive and profound transformation of an organization or to create value" (Emily Henriette, Mondher Feki and Imed Boughzala, 2016). In the National Digital Transformation Project in 2019, the Ministry of Information and Communications of Vietnam defined digital transformation as "the use of data and digital technology to comprehensively and comprehensively change all aspects of economic and social life, reshaping the way we live, work and relate to each other" (Ministry of Information and Communications, 2019).

Thus, digital transformation can be understood as the process of shifting from a traditional model to a digital model, by applying new technologies such as the Internet of things, big data, cloud computing, artificial intelligence, technology software to change the way of operating, managing, working processes, culture of agencies and units; shifting activities from the real world to the virtual world in the network environment. However, digital transformation is not simply about converting all data into information encoding. However, it also includes applying the most modern technologies to create new values in all areas of social life and create the most convenience for people. Many countries in the world have been implementing national strategies on digital transformation. The content of digital transformation is very broad and diverse. However, there are some common main contents including: Digital Government (online public services), digital economy (such as digital finance, e-commerce), digital society (education, healthcare, culture) and digital transformation in key industries (agriculture, tourism, electricity and transportation). In the context of global integration, the Vietnamese judiciary, in general, and the notary industry in particular, cannot escape the general trend of the world.

In the field of notarization, "digital transformation in notarization activities is the integration and application of digital technology to fundamentally change information, processes, and notarization procedures to improve the effectiveness of notaries' practice, the effectiveness of state management of notarization activities, ensure the legal value of notarized documents, and meet the increasing requirements of subjects participating in transactions and contracts" (Nguyen Thanh Dinh, 2022). With this understanding, digital transformation of notary activities will fundamentally change the organization, construction, implementation, and management of processes and activities providing notary services on a digital technology platform to create higher value and efficiency.

**Digital Notarization**

Currently, there are many different views on the concepts of "electronic notarization" and "digital notarization". However, through research and comparison of other sources of documents in the world, including the recommended documents of the International Union of Notaries and reference to the opinions of experts in international seminars with the Federal Republic of Germany, the French Republic, and the Republic of Uzbekistan organized by the Vietnam Association of Notaries, it is found that there is no distinction in the understanding between "electronic notarization" and "digital notarization".

According to the law in the state of Virginia, USA: "electronic notarization means the act of notarization by a notary public under §47.1-12 or as permitted by law about electronic documents"; §47.1-12 stipulates: "Each notary is empowered to perform the following notarial acts: (i) certify, (ii) organize the execution of oaths and affirmations, (iii) certify that a copy of any document, except a document in the custody of the court, is a true copy of the original, (iv) certify affidavits or statements of witnesses, (v) perform verification of facts, and (vi) perform other acts specifically prescribed by law" (Ministry of Justice of Vietnam- Supreme Council of Notaries of the French Republic, 2018). Alternatively, in Japan, electronic notarization is understood as expanding the scope of current notarial services to electronic documents; the processing of paper documents will be transferred to electronic documents (Anna V. Sukhovenko, 2020).

In Vietnam, "electronic notarization is the act of a notary public notarizing electronic documents by electronic means. One of the methods of performing electronic notarization is to use digital signatures and digital seals to authenticate and confirm the validity of digital certificates. Electronic notarization is the process by which a notary public attaches an electronic signature and a notarized seal with a security key to an electronic document (PDF or Word file)" (Phan Thi Binh Thuan, 2020). At that time, the task of the digital signature was to encrypt electronic documents into a unified entity and ensure the integrity of that document, which cannot be edited. Electronic certification allows for issuing an exact time and location stamp at the time of certification, associated with the digital signature. The recipient of the document can use the same software that the signer used to sign the digital signature or use some popular text reading and editing software built and developed by trusted agencies and organizations such as Adobe Acrobat (by Adobe), Word, Excel, Power Point (by Microsoft), SignPDF (by the Government Cipher Committee) to check the digital signature on the electronic document they receive. To better understand digital notarization, author Dao Duy An, General Secretary of the Vietnam Notary Association, has summarized the following example: "Sending and receiving documents in the form of photos via Facebook Messenger, email or scanning archived records is a digital activity. Digital transformation will allow notarization activities to be performed in part or in full on a technology platform and digital data such as: online notarization, verification and authentication using databases; storing and extracting digital data; certifying digital documents, using digital signatures, digital seals, managing the entire workflow in the digital environment, reporting, statistics, inspection, checking and proposing policy development based on digital data analysis activities" (Dao Duy An, 2022). This approach is similar to the provisions on electronic notarization of the 2024 Notarization Law. According to Clause 1, Article 62 and Article 65 of this Law, "electronic notarization is notarization performed by electronic means to create electronic notarized documents, electronic notarization is performed according to the direct electronic notarization process or online electronic notarization". From the above analysis, it can be seen that the construction and development of "digital notarization" in Vietnam is part of the "digital transformation" process in notarization activities.

Thus, with the above approach, digital notarization is applied in many countries worldwide and initially creates significant changes in the provision of notarization services to meet society's increasing needs. Depending on the conditions and characteristics of each country and territory, digital notarization is applied in different scopes and levels. However, when using digital notarization, activities are still carried out according to procedures and must comply with the provisions of law.

**2. Perspective on Vietnam's digitalization**

**Vietnam's policies on digital transformation**

To adapt to the new situation in Vietnam, the Politburo has issued policies and strategies to proactively participate in the Fourth Industrial Revolution, emphasizing the urgent need to accelerate the digital transformation. On that basis, the Vietnamese Government has issued many plans and action programs to promote national digital transformation in many aspects, sectors and fields. The focus of these plans and programs is to create the following three breakthroughs: (i) perfecting synchronous institutions, (ii) developing human resources, and (iii) building an infrastructure system that is more or less associated with digital transformation. In particular, building a synchronous infrastructure system is always an important factor, focusing on developing telecommunications infrastructure, creating a foundation for national digital transformation, and gradually developing the digital economy and society. The Vietnamese Government emphasizes that in its goals for digital economic development, it must strive to complete the construction of a digital government by 2030, with the digital economy reaching about 30% of GDP and ranking among the top 50 countries in the world, and ranking 3rd in the ASEAN region in terms of e-government and digital economy.

This shows that the Vietnamese Government is determined to implement the national digital transformation program and build e-government effectively. According to the United Nations' assessment of e-government development, Vietnam has improved its ranking in four consecutive evaluations since 2014. Vietnam is currently ranked 71st out of 193 countries globally and 6th in Southeast Asia (United Nations, 2024). This progress is an important driving force and necessary foundation for building and developing digital notarization in Vietnam in the context of national digital transformation.

**The necessity and inevitability of digital transformation in notary activities in Vietnam**

*\* Digital transformation in the notary sector to meet the requirements and carry out the key task of digital transformation of public services*

According to the provisions of the Law on Notarization in Vietnam, notarization is a public service that plays a crucial role in the judicial sector. The digital transformation of public services is a key objective outlined in documents from both the Communist Party of Vietnam and the Government, which relate to the development of e-government and national digital transformation.

After the National Public Service Portal Project was officially approved, the first public services were deployed nationwide (5 public services) and at the ministerial level (4 public services). From May 22, 2020, according to Decree No. 45 of the Government, allowing the certification of electronic copies from original documents and papers (certification of copies from originals is one of the notarized services performed) on the National Public Service Portal, this regulation is a new step forward, in line with the requirements in the process of building e-Government and providing online public services. Changes in policies regarding digital transformation in Vietnam show that digital transformation for notarization services is inevitable when most public services are digitally transformed. Notarization is not just a simple public service; the output and efficiency of notarization activities are closely related to many other public administrative services and public services. Since notarization plays an important role in the government services provided to citizens, it is essential to ensure consistency in the legal framework, technical infrastructure and service delivery methods.

*\* Digital transformation in the notary field aims to innovate working methods, create breakthrough changes in service delivery efficiency, better meet society's requirements and demands for notary services, and improve the effectiveness of state management in this field*

Digital transformation is increasingly being implemented in all fields, with most subjects from the Government and businesses to individuals. This shift requires synchronously using many services, especially public services on digital platforms. Notarization is one of the important public services, so providing services on digital platforms to meet the needs of society is inevitable. As society increasingly operates on digital platforms, digital economy products become "raw materials" for the notary industry in its activities. This transformation in the notary field is expected to significantly improve methods, workflows and service efficiency through the power of digital technology. These benefits include:

- Faster, easier and more cost-effective communication to send and receive information;

- Faster and more accurate verification, authentication and processing of information, reducing cases of fraud and counterfeiting;

- Allows remote notarization, helping to minimize space and time barriers while reducing costs;

- Completely changes the storage method, significantly improving economic efficiency, record management, security and convenient data retrieval;

- Shortening the time to process work, creating maximum convenience for people to access the service while ensuring the legal strictness of notarization activities.

In addition, when working on a digital platform, the ability to process, synthesize, report and review information is achieved with high accuracy and speed. Digital transformation in the notary industry will help management agencies access comprehensive data and closely monitor all activities of the subjects they supervise at any time without spending too much effort on reporting, statistics and reviewing data. Moreover, it allows remote inspection and examination of any notary organization, notary or notary transactions.

*\* Digital transformation in the notary field to meet the requirements of international integration in the judicial field:* In the context of countries in the region and worldwide, simultaneously implementing digital transformation, legal documents and digital data are increasingly replacing traditional paper documents. The method of using and authenticating electronic documents is significantly different from the method of using paper documents. Recognizing the legal value and accepting the way of using electronic documents is necessary for Vietnam because it opens up great opportunities for Vietnam to integrate with the international community in the judicial field. This transformation helps eliminate many cumbersome procedures that individuals and organizations face when carrying out legal procedures with foreign elements. On the contrary, digital transformation in the judicial field, especially notarization, facilitates the authentication, recognition and use of Vietnamese legal documents abroad, making this process easier and more convenient.

**Benefits of digital notarization in notarization activities in Vietnam**

*\* Create a breakthrough in the service provision process, shorten time, narrow geographical barriers, improve accuracy, and diversify service provision methods*

Notarization is the process of receiving and processing information. According to the provisions of the 2014 Notarization Law, specifically Article 40 and Article 41 (Article 42 and Article 43 of the 2024 Notarization Law - effective from July 1, 2025), if the notary performs his/her duties correctly and follows the correct procedures, the average time from receiving the request to issuing the notarized document is usually 45 minutes (for normal sales, transfers, and authorizations with full valid documents). This process can take several hours or even days in more complex cases, such as inheritance division, family property transfer, or cases where the documents are incomplete or contain errors. To handle a large volume of work, notaries must prioritize important steps, such as witnessing the signing of documents, explaining the legal consequences to the parties, and signing and issuing notarized documents. Some remaining tasks can be assigned to secretaries, including receiving notarization requests, providing explanations, advising on document completion, analyzing document content, and verifying and comparing information. When implemented in this direction, the notarization process is not fully and strictly **enforced,** and the quality of notarization activities may be affected. However, notaries cannot handle a large volume of documents. At that time, it will not be easy to meet the needs of quick resolution without waiting too long for the requester while ensuring revenue for the Notary Office.

On the other hand, the current Notary Law limits the scope of notarization of contracts and real estate transactions within the province or city where the notary organization is located (Article 42, Notary Law 2014). This limitation makes it difficult for requesters to find notary services, especially if there is no notary organization in their area or if, due to force majeure, they cannot go to the notary and are not required to notarize outside the headquarters of the notary organization. The application of digital notarization not only helps to process information faster and shorten the time to resolve work, but also eliminates the barrier of geographical distance or when natural disasters or widespread epidemics make it impossible to travel. In addition, digital notarization also improves accuracy, reduces confusion in repetitive tasks and allows for multiple service options, including direct notarization and online notarization.

*\* It creates maximum convenience and minimizes costs for notary requesters and notary organizations*

Instead of going to a notary office in person and performing many manual procedures, digital notarization allows the requester to use digital platforms to request services. Notaries can handle most notarization processes remotely, helping the requester significantly reduce the need to travel and wait for the notarization procedure. In addition, digital notarization also transforms the way evidence is stored and authenticated. Requesters no longer need to keep signed documents, as they can verify the existence of these transactions from anywhere using digital technology.

On the other hand, digital notarization saves physical resources by minimizing paperwork and unsealed processes. This approach reduces costs associated with storing notarized records while preventing risks in storing physical documents, such as loss, damage or fading over time. It also provides an effective solution for managing notarized records if the Notary Office ceases to operate.

Digital notarization operates on a big data platform. This database is an important tool for comparing and authenticating information, helping to prevent fraud and counterfeiting in notarization activities. By using a centralized big data system and a warning and prevention information system, managers can set standards to warn of unusual factors in notarization activities. Based on statistical results, reports and warnings of violations, management agencies can quickly take preventive measures and resolve violations directly in the system. This may include temporarily restricting certain functions or locking the accounts of violators (including notaries, notary organizations, notarization requestors and subordinate managers). In addition, this system also ensures data safety and security much higher than traditional notarization, such as providing the right access object to minimize the risk of impersonation or allowing comprehensive tracking of the entire access history, including time, location and content of the accessed data. Even if a dispute arises, the notary can quickly provide evidence by accessing the archives.

*\* Effectively prevent fraud and forgery in notarization activities*: Digital notarization operates on a big data platform. This database is an important tool for comparing and authenticating information, helping to prevent fraud and forgery in notarization activities. With centralized big data, through a warning and prevention information system, managers can set standards to warn of unusual factors in notary activities. From statistical results, reports, and warnings of violations, management agencies can also take immediate preventive measures and handle violations right on the system by temporarily restricting certain functions or locking the accounts of violators (including notaries, notary organizations, notary requesters, and subordinate managers). It ensures data security and much higher security than traditional notarization, ensuring the right access subjects avoid the problem of impersonation, allowing control of the entire access history, time, location and content of the data exploited. Even when a dispute arises, the notary can quickly provide evidence through access to the archived records.

*\* Improve the effectiveness of state management in notarization*: When exploiting the National Database on Notarization, the management agency will have a source of complete, detailed information, updated according to time, location of notarization and developments of notarization activities nationwide. In addition, it is possible to prepare inspection and examination reports at any time or periodically through the statistical and reporting system. Thanks to modern data analysis technology and AI applications, some management activities, such as notifying relevant agencies, can be automated at many stages.

**3. Digital notarization in some countries in the world and the practice of applying digital notarization in Vietnam.**

**In the United States**

The United States was one of the leading countries in developing online notarization services when electronic signatures appeared in some states in the 2000s. Starting around 2000, state and federal laws in this country have allowed notaries to use electronic signatures for notarization acts. However, to ensure safety, the National Electronic Notary Commission was established to develop standards for electronic notarization and was completed in 2006. By 2011, Virginia was the first state to allow online notarization (remote electronic notarization). This type of service developed and exploded during COVID-19, when the US Government had specific regulations and moved all direct notary activities online with the Remote Online Notary Law (RON). When using this service, customers only need to upload documents online, confirm their identity with an ID card through software, and then make a direct video call to the notary to proceed with the confirmation. Finally, a document with an encrypted electronic signature will be sent to the customer's email and will be ready to be sent anywhere (DocuSign Contributor, 2023). With the RON regulation, the legal requirement to identify the signer to appear directly and physically before the notary is met using audio-visual electronic communication technology. Therefore, remote online notarization is known as remote notarization, webcam notarization, online notarization, or virtual notarization (Alerts, 2020).

Alternatively, United States Senate Bill 3533 (introduced by Senators Mark Warner and Kevin Cramer) was introduced on March 18, 2020, which became the Securing and Enabling Commerce Using Remote and Electronic Notarization Act of 2020 (the “Secure Act”). The Act requires tamper-proof technology in electronic notarizations, requires multi-factor authentication, and supplements existing state laws by allowing states to implement their own RON standards. The American Land Title Association (ALTA) also publicly endorsed the bill. Furthermore, a nearly identical version of the bill was introduced in the House of Representatives on March 23, 2020, H.R. 6364, which also authorizes and establishes minimum standards for electronic and remote notarizations (Uniform Law Commission, 2022); all notaries in the United States perform remote online notarizations (RON) using audio-visual communications and tamper-evident technology in connection with interstate transactions. Even states without RON laws but with E-Notarization regulations require the principal to be physically present with the notary, but allow the notary to use an electronic seal (Notarize, 2021). While the e-notarization statute does not provide the same level of safety and social distancing as the RON Law, it can somewhat reduce potential dangerous contacts by allowing for the electronic transmission of documents instead of sending physical documents with original signatures by mail.

**In France**, Electronic notarization began in 2008. France has amended and supplemented many relevant regulations, including the Civil Code (amended in 2000) and issued rules on electronic signatures and electronic notarization to implement electronic notarization. Electronic notarized documents have the same value as paper notarized documents. All electronically notarized documents are stored at the MICEN Center under the supervision of the French Supreme Council of Notaries. Electronic notarization in France is considered a major change in the method and environment for performing notarization, helping notarization to be faster and more effective and notarized documents to be stored longer (Ministry of Justice of Vietnam - Supreme Council of Notaries of the French Republic, 2018).

**In China (China Notary Association, 2018):**Since 2000, information technology has been applied in notary activities, with many different notary software programs built by notary organizations. Later, the China Notary Association merged them into a common management system. In the report "Information Construction of China Notary Technology" of the China Notary Association, as of the end of August 2018, there were 2,961 notary organizations and 13,385 notaries using this system. The development and use of notary software have supported many aspects of notary activities such as standardizing notary services, improving service provision capacity, collecting notary data, submitting documents online (customers only come to the notary practice organization once), sharing information about notary transactions between notaries to reduce verification, managing notary practice, sharing with notaries other relevant details such as wills, intellectual property. China will exploit and implement online notary services, remote notary systems, and store electronic evidence online shortly, along with researching and developing regulations on notarization by regulations on online transactions.

**In Korea**, the electronic notary system has been in place since 2010, allowing users (notaries) to be identified via computer or smartphone. This system is useful when clients live in areas with no notaries or outside Korea, and helps reduce costs. Previously, because Korea did not have regulations allowing clients to receive services via images, even when using the electronic notary system, clients still had to visit the notary practice organization at least once to meet the notary in person (Bui Nguyen Khanh, Phan Xuan Linh, 2022). Since June 20, 2018, Korean law has allowed clients to meet notaries via video conference and receive notarized documents online. However, not all practicing notaries can perform this procedure; only a few licensed notaries can do it. Therefore, the Korean Ministry of Justice must solve some technical problems to be able to check and confirm users (notaries) and must have close coordination with the Ministry of the Interior (the notary practice card issuing agency) (Korean Notaries Association, 2020).

In general, through the digital notarization models in some of the countries mentioned above, each country's approach to digital notarization is different. Some countries use electronic tools throughout the notarization process, including document reception, processing and certification by notaries using digital signatures, electronic signatures and digital seals. However, other countries can only use these tools at certain stages of the notarization process. However, the trend is that the notarization process will gradually be done online through electronic tools. First, the common starting point among countries when implementing digital notarization is to build a centralized database to store and manage data at the national level, identifying the steps of the notarization process carried out online through electronic tools. Next is to study online and offline modes in the electronic notary system, using fingerprints and electronic signatures, allowing the exchange of information data through connections with the data systems of the State and other agencies and units. Finally, to strengthen anti-counterfeiting measures in electronic notarization, including implementing multi-factor authentication and building a clear and comprehensive legal framework for regulation.

**In Vietnam**

Compared to other countries, digital notarization in Vietnam is still quite new in theory and practice, even for notaries and management agencies in the notarization field. In the notarization field, the manifestations of digital notarization gradually appeared through the application of information technology in notarization activities. Before 2004, in Vietnam, the application of information technology in notarization activities was not implemented uniformly. Instead, some Notary Offices built their software to manage notarization activities within the unit. By 2004, implementing the agreement between the Government of the Socialist Republic of Vietnam and the Government of the French Republic and according to the Notarization Computerization Project of the Ministry of Justice, this Ministry deployed Master software in notarization activities to Notary Offices. However, this implementation was not synchronized between localities. In 2007, this agreement ended, leading to the current situation of applying information technology to notary activities in localities and notary organizations, depending on the needs and conditions of each place. Some localities with high demand for notarization have built their own shared software for notarization activities in their localities; for example, Ho Chi Minh City uses notarization software provided by CMC; Hanoi, Can Tho City and the provinces of Tuyen Quang, Vinh Phuc, Hung Yen, Vung Tau, Soc Trang all use notarization contract management software and blocking data (Uchi). On June 20, 2014, at the seventh session of the National Assembly of Vietnam, the 2014 Notarization Law was passed for the first time, mentioning the responsibility of localities to build notarization databases (Article 62). It is considered an important lever and foundation to create a premise for applying information technology and digital technology in the notarization field. This content is further affirmed in Resolution No. 172, dated November 19, 2020, of the Government on developing the notary profession. The Government has affirmed that to promote the application of information technology in notary activities, it is necessary to "complete the construction of a notary database according to the provisions of the Law on Notarization to serve notary activities, ensuring the sharing and connection of notary information with other relevant sectors and fields". Currently, the Law on Notarization 2024 has more clearly defined the notary database as follows: (i) the notary database belonging to the sector database; (ii) the contents of the notary database of the Ministry of Justice and the local notary database; (iii) the responsibilities of the Ministry of Justice as well as the Provincial People's Committees for the construction and management of the notary database; and (iv) the exploitation, updating, use, connection and sharing of information between the notary database and national databases, databases of ministries, branches, localities and other databases (Article 66).

In addition, in the synchronous relationship of the legal system, several legal provisions on electronic transactions and information technology in Vietnam have made significant developments, contributing to supporting the construction and operation of digital notarization in notarization activities. Accordingly, the Law on Electronic Transactions 2023 stipulates "electronic signatures", "digital signatures", "legal value of electronic certificates", "conditions for converting forms between paper documents and data messages", and "requirements for digital signatures to be electronic signatures". Regarding the legal value of data messages, this Law stipulates as follows: "The information in a data message is not denied legal value just because it is expressed in the form of a data message" (Article 8) and "in cases where the law requires a document to be notarized or certified, the data message is considered to meet the requirements if it is notarized by the provisions of the law on notarization; certified by the provisions of this Law and the law on certification" (Clause 2, Article 9). In addition, several issues regarding the legal value of electronic documents, archiving electronic documents, and issuing electronic copies as prerequisites for digital notarization activities are also legalized in Decree No. 30/2020 on Document Work, Decree No. 45 of 2020 on Implementation of Administrative Procedures in the Electronic Environment of the Government of Vietnam. On the other hand, the 2023 Law on Identification has stipulated the issuance of electronic identification cards to each Vietnamese citizen as well as recognized the use value of electronic identification cards in transactions and other activities according to the needs of citizens (Clause 17, Article 13 and Article 33); the 2024 Land Law stipulates the issuance of electronic land use right certificates and ownership of assets attached to land and its legal value when conducting transactions according to the provisions of Law.

However, when comparing the software currently used in notarization activities in Vietnam with the digital notarization model in a country in the world, it can be seen that the application of information technology to notarization activities in our country up to now is not completely digital notarization, although the 2024 Law on Notarization has regulations on electronic notarization. It is due to the following reasons:

- (i) Although the software currently used in notarization activities allows the creation of notarized documents directly and storage in the software's database (not digitizing paper documents), notaries do not use electronic signatures or electronic seals to sign notarized documents;

- (ii) The notarization process is still carried out traditionally; the current Notarization Law (2014 Notarization Law) has no regulations affecting the electronic notarization process. According to Article 40 of this Law, notaries receive and process paper documents and sign and stamp on paper notarized documents; no stage of the notarization process has been officially implemented online. The use of software and the entry of information into the software are considered secondary processes, parallel to and supporting the traditional notarization process, mainly serving the purpose of looking up, sharing information, storing data, and drafting documents and statistics. Although in reality, to partly reform procedures, some notary organizations have received requests related to notarization and certification activities via electronic tools (for example, Notary Office No. 4 of Ho Chi Minh City organizes the reception of requests for copies of notarized documents via email). However, in general, the level is still simple, supporting notarization activities and has not replaced or reduced the steps of the traditional notarization process. To optimize the notarization process, many technological measures have been applied by Notary Offices, such as consulting, receiving documents via phone and email, using some software to look up legal documents, using databases, and contract drafting software. However, compared with the provisions of the current Notarization Law, these measures still have many inconsistencies and are not always suitable. According to Article 65 of the 2024 Notarization Law - effective from July 1, 2025, although it mentions the electronic notarization process, it cannot be implemented yet because it is necessary to wait for the Government to issue a guiding Decree and it is essential to build a complete database system to connect and operate electronic notarization.

**4. Difficulties in implementing digital notarization in Vietnam**

**No clear legal regulations exist on the order, procedures, and electronic notarization records**

From July 1, 2025, the Notarization Law 2024 will come into effect, which means that Vietnamese law has officially recognized the existence and legal value of electronic notarization products. However, there are still no specific instructions on implementing this notarization model, including direct or online electronic notarization. Especially the regulations on synchronization and connection with the Law on Electronic Transactions related to the issuance of inheritance documents, bills of exchange, and other valuable papers as "sources" for electronic notarization records.

**The construction, exploitation and use of notary databases lack uniformity and consistency and do not serve to implement digital notarization**

The current Notary Law mentions the construction of a notary database, but there is no long-term strategy for applying information technology. Therefore, this provision is still quite vague. The approach and construction of databases at the local level are still unscientific and have not brought high efficiency. The reality of database construction in provinces and cities recently shows that each locality chooses a different technology platform, design standards, functions, and database tasks, creating a lack of synchronization. These databases are not interconnected or connected and often cannot be integrated with other specialized databases, such as the national population database, the secured transaction registration database, and the national land database. Building separate databases in each province and city will cause great waste, especially in provinces with few notary organizations and a limited number of notaries. Each locality must carry out the entire process from project preparation, survey, database construction, testing, training, official operation, and hardware and software maintenance.

On the other hand, designing and building databases in provinces and cities has not fully considered the purpose of state management of notarization. Therefore, the Ministry of Justice has encountered many difficulties in controlling the activities and use of these databases by notaries, notary organizations or even professional secretaries. In addition, in this situation, there is no way to ensure that the service providers exploiting the database have the right to use the notarization data for other purposes. Many localities often encounter difficulties in solving technical problems due to their dependence on database service providers. For example, for the Uchi database, employees of any Notary Office can access and view the entire history of notarization transactions of customers from 2010 to the present. Data from Uchi can be accessed and shared externally without effective control mechanisms, raising serious concerns about customer information security, information accuracy, and the integrity of contract/transaction data lakes. Notably, an incident occurred in 2019 when a server system error affected the notarization software developed by CMC Company in Ho Chi Minh City (Kim Phung, 2019). Although at that time, this incident was resolved quickly, if this time is prolonged, it can lead to many risks, causing damage to the person requesting notarization and the notarization organization.

In addition, the notary database, as prescribed by the current Notary Law and the Notary Law 2024 (effective from July 1, 2025), has not been fully adjusted and does not meet the data requirements for digital notarization. For example, in Clause 1, Article 62 of the Notary Law 2014: "The notary database includes information on the origin of assets, transaction status of assets and information on preventive measures applied to assets related to notarized contracts and transactions". Alternatively, according to Clauses 1, 2 and 3, Article 66 of the Notary Law 2024, only the content of the notary database of the Ministry of Justice is added, which is information on notaries, notary practice organizations, data on notary activity results, but these regulations still cannot meet the data source when operating digital notarization. Meanwhile, "notarized data includes contract and transaction information; personal information of the subject or property; transaction prevention information; secured transaction registration information and other digitized information (images, sounds describing the contract signing process, information through statistical data or converted data that computers can synthesize" (Nguyen Thanh Dinh, 2022). Up to now, databases directly related to notary activities in Vietnam are still scattered and lack synchronization among management agencies; issues related to security, illegal attacks by high-tech criminals, and privacy are still poorly controlled. It not only affects the effectiveness of public services in general, including notary services in particular. For example, local land databases are not yet synchronized with the national database system; other sectorial databases on population management and information on real estate transaction/dispute prevention are managed by different agencies/sectors; notaries have not been granted the right to exploit and use them for their professional activities, which limits the ability to access and develop digital resources of notaries. At the same time, according to Article 62, the provisions on "data" (information) focus on content rather than process. Therefore, when building a local notary database, the Department of Justice and the People's Committees of provinces and cities prioritize data storage and sharing mechanisms, often ignoring the development of electronic processes to replace traditional notary methods. Due to this orientation, the software currently used in notary activities mainly supports existing notary activities, operating in parallel with the conventional notary process. In addition, the regulations on electronic notarization under the Notary Law 2024 are still waiting for the Government's guiding Decree and are unlikely to be implemented soon.

**The regulations on the construction of a centralized notary database on a national scale and the updating, storage and control of notary data are not clear and ununified**

Currently, regulations on updating, storing, and controlling notarized data are general and not specific. The Notarization Law 2014 (Article 62), Circular No. 01 of 2021, and Document No. 729 of 2017 of the Ministry of Justice are documents that mention the responsibility for implementation, regulations on exploitation and use of notarized databases; however, these instructions only stop at providing general instructions and assigning the People's Committees in each locality to implement. At that time, each locality continues to issue its own Decision applicable to its locality without connection and synchronization between localities nationwide. Even with the newly issued Notarization Law 2024, no new regulations provide specific guidance (Article 66). Therefore, to date, what information must be included in the database, the required level of detail, the update period, who is allowed to access, correct, replace or delete data, and even determining the "legal value of data search results" has not been regulated. This leads to the fact that there are cases where citizens' assets are unreasonably restricted from trading due to information recorded in the notary database. This information may be based on the subjective judgment of the notary, who may consider certain details to pose risks to future transactions. The following example can be cited:

Previously, Ms. A made a notarized will at Notary Office B, with the content of leaving her property, the house, to her daughter. Now Ms. A goes to Notary Office C to notarize the sale contract of the same house as before. The notary at Notary Office C refused to certify the transaction because there was data that Ms. A had made a will to leave the house to someone else. If she wanted to carry out this transaction, Ms. A had to cancel the previous will or contact the previous Notary Office (Notary Office B) to remove the information. Similar cases also commonly occur in deposit and house rental transactions where the depositor or the tenant violates the contract, abandons the contract, or absconds and cannot be contacted to terminate the agreement.

In addition, updating information in the database is not mandatory under the 2014 Notary Law, although it will become mandatory according to Clause 4, Article 66 of the 2024 Notary Law. However, there are no effective control measures or clear regulations regarding sanctions for non-compliance, so there is still a situation where some notary organizations continue to issue notarized documents without properly storing them, not entering them in the notary book, and not updating the database. This situation often occurs in authorization transactions, transactions related to real estate, cars, and motorbikes. On the other hand, the operation of the notary database, over time, also has problems; adjustments to apply a new policy or standard nationwide will lead to adjustments in all database systems of different provinces and cities, which will be very complicated and a waste of budget.

**The application of information technology in notarization activities is inconsistent across different localities.**

To implement digital notarization effectively, two key requirements must be met: Internet coverage and a suitable platform (software), of which the Internet is a prerequisite. It will be difficult when the implementation of digital notarization in non-urban areas, especially remote areas, is still lacking. Infrastructure is still weak and not synchronized, and people's means and skills to use the Internet are limited. Residents in these regions may have restricted access to the Internet. They may not possess the skills necessary to navigate digital tools. They also cannot go to a notary organization in a province or city other than where they live to request notarization because the current Notarization Law and the 2024 Notarization Law limit notarization authority within the scope of the provincial level.

**The apprehension of notaries and customers when implementing digital transformation in notarial activities**

The implementation and development of digital notarization must be carried out synchronously in many stages and have consensus from many sides because the conversion from traditional notarization to digital notarization is not simply a matter of assigning an electronic signature and seal to a notarized document or saving costs for notarial practice organizations, creating convenience for management agencies. This revolution changes the entire way of performing notarization and the form of notarized documents, leading to changes in other related procedures and processes (such as registering ownership rights, property use rights, and tax payments). When performing digital notarization, not only do legal regulations related to notarization activities change, but there are also major changes in the approach, skills in performing notarization and receiving output products of this activity. Experience from implementing digital transformation in various industries and fields in recent times shows that these changes always cause a cautious, hesitant mentality, not ready to accept and use the new. For example, when applying digital signatures of notaries will change the signing method of notaries from traditional notarization procedures to working in an electronic environment, and performing the act of electronic signing requires preparation of both means and knowledge of applying appropriate technology that not all notaries can easily access immediately. In addition, the situation of fake documents in notarization activities is becoming increasingly complicated with sophisticated tricks, the problem of high-tech crime, and the explosion of diverse forms of fraud via the Internet system are also very big reasons for the cautious mentality when implementing digital notarization. Notaries mainly use skills, knowledge and experience gained through direct contact to identify real/fake documents when receiving notarization records. Suppose digital notarization is performed without connection and sharing information about the real owner, the origin of the asset from the relevant agency, and the safety and security in fighting against attacks from high-tech criminals. In that case, the risk of forgery is very high, affecting the safety of the transaction. It is also emphasized by the group of countries belonging to the Organization for Economic Cooperation and Development in the legal topics that need to be built or adjusted to adapt to the new requirements of the practice of science and technology development and digital transformation: (i) data protection, (ii) information security, and (iii) copyright/intellectual property (Pham Sy Thanh, 2020).

On the other hand, according to the new provisions of the Notary Law 2024, to provide electronic notarization services, not only must notaries but also notary organizations have sufficient technical equipment to perform (Article 63). Therefore, Notary Offices must invest heavily in technology and digital facilities, resulting in high initial operating costs. This is a major obstacle for Notary Offices in localities with few contracts and transactions. After all, the organizational model of a Notary Office under current regulations is a form of enterprise. For enterprises, there is always a balance between costs and profits. This reality may affect the determination of many Notary Offices to apply digital notarization.

**5. Discussion on the implementation of some solutions to contribute to the construction and development of digital notarization in Vietnam**

**Identify the basic conditions for implementing digital notarization in Vietnam**

From the perspective of theoretical and practical scientific research, to build, operate and develop sustainable digital notarization in the direction of comprehensive digital transformation, the competent management agencies of the Industry must identify the necessary basic conditions that Vietnam must meet to deploy digital notarization. Based on the analysis and assessment of the situation of deploying digital notarization in Vietnam in the past time and learning from international experience, along with the recognition of the ongoing digital transformation trend in notarization, it is possible to identify the following main conditions necessary for the successful deployment of the digital notarization model in the coming time:

- On political will: Strong determination and commitment from leaders at all levels;

- On infrastructure: Adequate equipment and technological resources;

- Legal framework: Continue to build and perfect legal regulations on digital notarization and related regulations synchronously and completely;

- Clearly define the nature and main tasks of notarization.

**Establish a notary data integration center (centralized notary database), which will be a foundation for developing digital operating systems around this database**

Databases are essential for digital transformation projects as the "soul" and place to store and process all information before providing it to users. In Vietnam, both the 2014 Notary Law and the 2024 Notary Law mention the establishment of a notary database. However, these regulations are still vague due to the lack of a long-term strategy for implementing information technology. The approach to building a database at the local level is unscientific and has many problems, as analyzed above. Building digital notaries in countries worldwide starts with building a data integration center. Most countries have prepared very early and began by creating a data integration center. For example, Mongolia has implemented the electronic notarization process since 2011, but the centralized notarization database has been constructed and operated since 2009. Similarly, countries such as China, South Korea, and France started by building centralized databases.

When building the Notary Data Integration Center, Vietnam needs to define the main tasks of this Center clearly. Accordingly, it is expected that this Center will perform the following main tasks:

- Evidence storage: Including all notarized documents and records arising from notarization activities;

- Evidence and data verification: Ensuring the uniqueness of the database to confirm the official source and legal value of the data;

- Information processing: The information collected from the notarization process will be sent to the database for analysis, comparison and processing;

- Notarization data storage: All data related to notarization activities will be stored to serve state management and monitoring of the operation of the notarization system;

- Information storage and provision for risk prevention include the storage and provision of information to help identify and warn of potential risks.

- Data analysis: Includes synthesizing, reporting, conducting statistical analysis and proposing data-based management solutions.

**Building a system of statistics, reports, warnings and prevention information**

Big data technology brings many advantages to digital notarization activities. The advantage of Big Data is that it allows the construction and synthesis of data and statistical reports that are very diverse and timely. Data can be synthesized and analyzed in real-time during the reporting process or automatically periodically. For state management in notarization, this system equips functional agencies with almost all the necessary tools to monitor and strictly control each notary and the organization's entire history of activities nationwide. It includes the number of transactions, transaction value, transaction content and creating statistics by locality, time, transaction type and specific information of each notarization record. This system allows managers to set standards to alert them to unusual elements in notary operations. For example, they can be notified when a notary performs too many notary transactions simultaneously or when there are discrepancies in the reporting details of the time and location of online transactions. In addition, this system can also identify and alert authorities to potential problems such as tax fraud and fake transactions or data lookups and verifications that violate mining regulations and security regulations. The system automatically issues warnings based on data analysis when unusual elements are detected. It helps management agencies promptly prevent fraudulent, negative or professional misconduct by notaries and notary organizations. Based on the results of statistics, reports and warnings of identified violations, management agencies can take measures to prevent and handle violations right on the system by temporarily restricting certain functions or locking the accounts of violators, including notaries, notary practice organizations, notary requesters and subordinate management units.

In addition to serving state management, this system also manages data to prevent and provide early warnings to notaries in their operations. Because this system is connected and synchronized with the Notary Data Integration Center, this data center has a complete data system, providing nationwide asset prevention data, not only tracking assets but also allowing tracking of individuals, agencies, and organizations that are found to have fraudulent, deceptive behavior, and signs of violating the law on notarization (including specific issues to note for each subject) to provide early warnings to notaries certifying related transactions. It completely overcomes the data limitations that notary organizations have long used, mainly to track assets to avoid the situation of multiple transactions or transactions on disputed assets within the province/city where the notary organization is headquartered.

**Building a roadmap for digital notarization in Vietnam**

Vietnam's roadmap for implementing digital notarization must be consistent with the Government's general roadmap. Accordingly, this task is included in the target group that must be completed by 2025. To implement this roadmap, it is necessary to synchronously deploy measures, prioritize the development of a favorable legal framework for digital transformation activities and create a basis for researching the plan to develop and deploy digital notarization. Immediately after the project is approved, it is necessary to deploy both technical items and legal mechanisms to facilitate the operation and use of the system. Special priority should be given to the Notary Data Integration Center (Centralized Notary Database) because this will be the foundation for other notary systems and business processes. According to the plan set by the Vietnamese authorities, by the end of 2025 at the latest, the Notary Data Integration Center (Centralized Notary Database) must be completed and put into operation along with its component systems. These systems include an online notary system, a data verification system, and a reporting, statistics, warning, and information management system. The online notary system can be deployed later because it is relatively complex and requires high technology.

**Determine the implementation method and resources to maintain and operate the digital notary system**

Determining the scale of the centralized notary database is crucial for effectively implementing the digital notary model in Vietnam. It is important for the digital notary system's implementation method, resources, maintenance, and operation. According to the provisions of the Law on Information Technology 2006 (amended and supplemented in 2017, 2023) and Article 66 of the Law on Notarization 2024, the scale of the Vietnamese notary database is a ministerial-level database built, operated and managed by the Ministry of Justice. This database will store evidence and documents recognized as having evidentiary value, requiring high data security and safety standards. Therefore, appropriate requirements must also be set when selecting an information technology enterprise to build this database and operational systems. Accordingly, priority is given to selecting large enterprises capable of providing technological solutions in software and telecommunications infrastructure. At the same time, enterprises with previous experience building national database systems will ensure technological consistency and seamless system design and operation. This approach will facilitate the integration, connection and use of common data from existing national databases such as the national population database, the national database on business registration and the national land database. To apply digital signatures and security solutions, enterprises can build centralized notarization databases or use the Government Cipher Committee's digital signature solution (the electronic copy certification system on the National Public Service Portal is currently using this solution).

Financial and human resources (organization - apparatus) are needed to maintain and operate the digital notary system. In particular, revenue will be generated from collecting service fees for financial resources. When subjects exploit and use the system, they will have to pay a fee depending on the type of service they use (it is expected that some services that may be charged are storing records, verifying notarized records, online notarization, providing and sharing documents at the request of agencies, organizations, and individuals). The basis for determining the service fee depends on each type of service. For example, in Singapore, the verification fee for each notarized document through the notarized data registration system of the Singapore Academy of Law is 85.6 SGD, equivalent to 65.05 USD (Ashutosh Ravikrishnan, 2019). However, the financial plan related to the Centralized Notary Database and the digital notary system must be calculated in detail when researching, establishing and implementing the project.

Regarding organization and human resources, due to the system's importance and security requirements, the data contained has evidentiary value, so the personnel managing the system must be civil servants of the Ministry of Justice. In addition, the operation of the digital notary system requires an independent accounting apparatus with partial or full financial autonomy. This organization will allow for more flexible and proactive management and operation, especially when hiring technical support services, experts, or technicians is necessary.

**Continue to build and gradually improve the legal framework related to digital notarization**

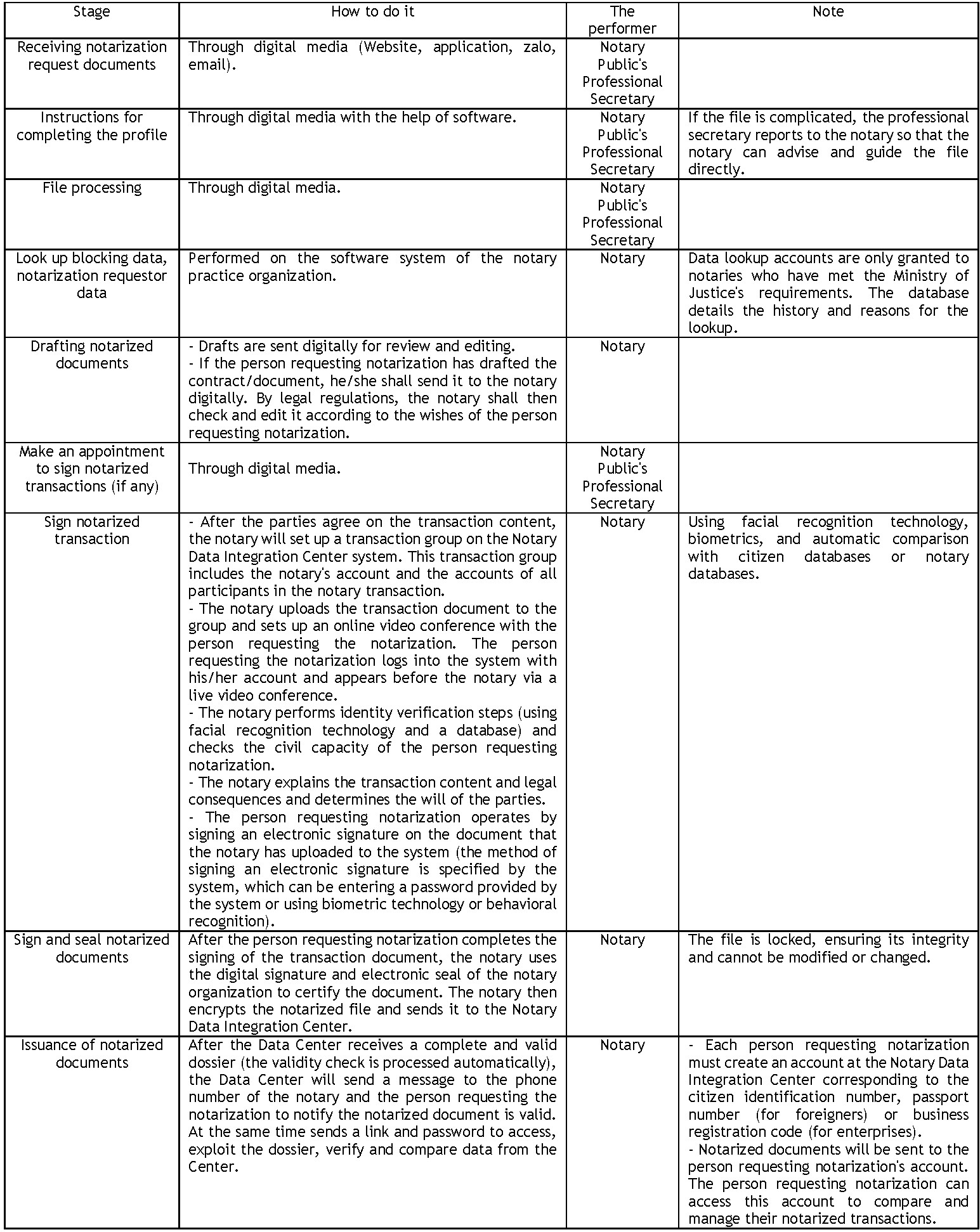
Vietnamese legislative bodies must issue specific legal regulations for creating digital notarized documents and legal regulations on digital signatures. At the same time, it is also necessary to have a team of qualified, proficient and honest notaries using this notarization process to certify the authenticity and legality of transactions while ensuring safety through the electronic environment. Legal regulations on notarization also need to stipulate standards on qualifications and skills in applying digital technology that notaries must achieve to be qualified to provide digital notarization services. On this issue, Vietnam should refer to the experience of Korea, where only notaries licensed by the Ministry of Justice are authorized to carry out digital notarization activities.

In addition, it is necessary to issue guiding documents on the process, procedures and documents of digital notarization. Accordingly, it is possible to build a direct digital notarization process and online digital notarization in the following direction: *(The process description tables are on next pages)*

**Direct digital notarization process**

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**Online digital notarization process**

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In addition, regulations should be related to the exploitation and use of digital notarized data. As analyzed in the previous content, notarized data is an important "asset" for notarization activities and includes many types of information. The current Notarization Law and the Notarization Law 2024 do not stipulate the responsibilities of different parties in the exploitation and use of digital notarized data. Therefore, there should be clear legal regulations on the scope of rights and responsibilities of each group of subjects in the exploitation and use of this data, as well as sanctions for violations.

**Increase the coverage and usage of the Internet nationwide; raise awareness of digital notary entities**

Notary activities occur not only in large cities but also in all localities. Hence, the vision of building a digital notary needs a roadmap for implementation in all regions and areas of the country. To do that, Vietnam must gradually improve the quality of the Internet network infrastructure, the level of Internet usage and the ability to access the Internet so that all people in all areas can use digital notaries when needed.

In addition, each citizen also needs to equip themselves with more knowledge and skills in using technology because, compared to traditional notarization, digital notarization requires the person requesting notarization to prepare documents in electronic form and learn the procedures for using electronic signatures to sign contracts.

**CONCLUSION**

Notarization is an important public service, an indispensable institution for rule-of-law states. Notarization activities have made a positive and important contribution to preventing disputes and violations of the law, providing valuable documents of evidence for dispute resolution, and helping to minimize risks for contracts and transactions, thereby protecting the rights and interests of the State, the rights and legitimate interests of individuals and organizations in society. In the context of an increasingly digitally transformed economy, digital transformation in notarization activities in general and digital notarization, in particular, is an inevitable trend to meet the increasing needs of society. The birth of digital notarization is considered a breakthrough in the notarization industry. Applying digital notarization benefits not only notarization requesters (creating maximum convenience and minimizing related costs) but also entities participating in notarization activities (improving efficiency in the service provision process, narrowing geographical barriers, improving accuracy, diversifying service provision methods, effectively preventing fraud and counterfeiting in notarization activities) as well as for relevant state management agencies (having a complete and detailed source of information on notarization activities nationwide, reporting for inspection and examination can be done immediately at any time). Although digital notarization has begun to be legally recognized in Vietnam, it is not easy to operate and effectively develop it in the future. It is necessary to create an implementation roadmap. To contribute to providing a theoretical basis for the effective construction and operation of digital notarization, the author has pointed out the benefits of digital notarization in notarization activities; at the same time, he has summarized the practice and analyzed the difficulties in implementing this type of notarization in Vietnam in the past. On that basis, the author has proposed several solutions and recommendations for the orientation of operating and developing digital notarization in Vietnam in the coming time, based on lessons learned from several countries worldwide.

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