STRENGTHENING ARTIFICIAL INTELLIGENCE (AI) IN THE ESTABLISHMENT OF E-GOVERNMENT IN VIETNAM IN THE CURRENT PERIOD

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ABSTRACT: *In the current period, the construction of e-government in Vietnam is being carried out in a strong, comprehensive and initially obtained favorable and positive results. In order to build and perfect e-government as required by the 4.0 era, it is necessary to strengthen and promote the application of artificial intelligence. The article contributes to clarifying the situation and providing solutions to promote the application of artificial intelligence in the construction of e-government in Vietnam in the coming time.*

Keywords: *Artificial intelligence; e-government; information technology; state agencies; revolution 4.0.*

I. Related concepts

Artificial Intelligence: (AI: Artificial Intelligence) can be defined as a branch of computer science related to the automation of intelligent behaviors. AI is a part of computer science and therefore it must be based on solid, applicable principles and theories of this field.

At the present time, this term is often used to refer to computers with no specific purpose and the science of the theory and applications of artificial intelligence. That is, each type of artificial intelligence is now stopped at the level of computers or supercomputers used to handle a certain type of work such as controlling a house, image recognition research, data processing. data of patients to provide treatment regimens, data processing for self-learning, ability to answer questions about diagnosis, answer customers about products of a company, ...

In short, artificial intelligence is understood as the intelligence of machines created by humans. This intellect can think, think, learn, ... Like human intelligence. Processing data at a wider scale, more scale, system, science and faster than humans.

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E-Government (e-Government) is the name of a government where all activities of the state are "electronicized", "networked". However, e-government is not merely a computer or the Internet; but a comprehensive renewal of relations (especially the relationship between government and citizens), resources, processes, modes of operation and the content of central government activities themselves and local, and even conception of such activities.

E-Government is the application of information and communication technology (ICT) so that government agencies from the central and local levels can innovate, work more effectively, effectively and transparently; provide better information and services to citizens, businesses and organizations; and create more favorable conditions for people to exercise their democratic rights and participate in State management.

II. Importance of artificial intelligence application in building e-government

Since 2000, our Party and State have always paid great attention to developing information technology applications in the activities of State agencies, identifying this as a driving force contributing to promoting the innovation to create the ability to take the lead to successfully implement industrialization and modernization. In 2014, the Politburo issued Resolution No. 36-NQ / TW on promoting information technology application and development to meet the requirements of sustainable development and international integration with the concept "Applying, developing information technology in all fields, but with a focus and focus. Prioritizing the application of information technology in administrative management and provision of public services, first of all in fields related to enterprises and people such as education, healthcare, transportation and agriculture ... "[5]. The Resolution has set specific targets by 2020 "to effectively implement the administrative reform program, closely linked to the development of e-Government and to provide high-level online public services and in many sectors". Concretizing the Party's policy, in 2015, the Government issued the first Resolution focusing on e-Government in order to "Promote the development of e-Government, improve the quality and performance of the State agencies serving the people and businesses better and better. To raise Vietnam's position on e-Government according to the ranking of the United Nations. Publicity and transparency of activities of State agencies in the network environment "[6].

On that basis, ministries, branches and localities have made great efforts and achieved important initial results as a basis for the deployment of e-government. The legal corridor in the application of information technology and building e-government has gradually been established. Some databases are informative, such as National Business Registration Database, National Insurance Database, National Database of Residential, Database National land is under construction and there are already components in operation. State agencies have provided some essential online public services for businesses and citizens such as business registration, tax declaration, tax payment, electronic customs, social insurance, etc. , the industry has processed the job profile on the network environment. In some localities, an electronic one-stop information system has been put into

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[5] Resolution No. 36-NQ/TW of July 1, 2014 of the Politburo of the Central Committee of the Communist Party of Vietnam on promoting the application and development of information technology to meet the requirements of sustainable development and international integration.

[6] Resolution No. 36-NQ/TW of July 1, 2014 of the Politburo of the Central Committee of the Communist Party of Vietnam on promoting the application and development of information technology to meet the requirements of sustainable development and international integration.

operation, gradually improving the transparency and responsibility of civil servants. The quality of human resources for information technology in Vietnam has also been paid attention.

However, the overview can see, the implementation of e-government has not achieved as expected of Party leaders and Government leaders. Vietnam's position in the United Nations e-Government Development Index is still at an average level, according to the latest report of the United Nations, in the past 2 years, we have increased by 1 rank, ranking 88 out of 193 countries and territories

be evaluated. In the ASEAN region, Vietnam ranked only modestly at the 6th position. The results of implementing many tasks on e-Government are still very slow and many places perform formally. The construction and deployment of national databases and information technology infrastructure serving as a basis for e-government development is very slow compared to the required schedule; data information systems are still local, there is no connection, sharing data between information systems; Data quality and information have not been updated timely and accurately; Many information systems have been implemented to ensure the safety, information security, and national reliability in electronic transactions. The provision of online public services is still running in quantity while the percentage of dossiers on the implementation of online public services is still very low; The handling of administrative procedures and handling of work files is still very manual, paperwork. There are also barriers in the mechanism of investment in information technology application which makes it difficult for businesses to implement projects. This leads to the situation where many leaders of the Government, ministries, branches and localities do not have sufficient digital data information of the subjects they manage.

The main cause of this problem is that many levels and sectors have not clearly defined the specific roadmap and tasks to deploy, there is a lack of linkage between information technology application and administrative procedure reform and innovation of ways and working methods, especially in relationships with people and businesses; has not promoted the role of the leader in implementation direction. Platform for integrating and sharing data among State administrative agencies as well as regulations on integration and sharing mechanisms of missing data; Data habits persist in many agencies; The assurance of safety and security for the information systems of the State agencies has not been given due attention. In particular, we still lack a comprehensive legal framework for building e-Government, lack of specific regulations on personal and organizational authentication in electronic transactions as well as legal regulations on documents and records, electronic storage, legal validity of electronic documents in administrative transactions and payment. The mechanism to ensure the implementation of the task of building e-government is not strong enough, which is also the cause of the ineffective and formal implementation. We have not maximized the participation of the private sector in building e-government and lack of financial and investment mechanisms suitable to the characteristics of information technology projects.

In order to continue inheriting and promoting the achieved achievements, meeting the objectives and requirements of the Government and the Prime Minister in the coming time, overcoming existing limitations, gradually realizing the determination for building a Government to create, develop, integrity, act and serve people and businesses, especially in the context of Industry 4.0, in the coming time we need to perfect the foundation for developing the Government of electricity in order to improve the efficiency and efficiency of the organizational structure of the Government. At the same time, it is necessary to ensure the safety, information security, network

security and continue to raise Vietnam's position on e-government according to the United Nations ranking as well as contribute to the increase of competitive indices and national development index.

Looking at the achievements of countries in the world, it can be said that implementing e-government is an inevitable trend, improving the transparency of the Government's activities, combating corruption, contributing to economic development. In addition, improving the competitiveness, labor productivity and the way to create prosperity for the nation. In order to have a strong breakthrough, Vietnam needs to research, learn from the world's experience and build concrete, direct and effective implementation steps. With this spirit, at present, the Government Office is presiding over the development of a new draft Resolution of the Government on a number of key tasks and solutions for the development of e-Government in 2018-2020, with orientations. by 2025. This will be a specific orientation to deploy the tasks of building an e-government towards the digital economy and digital society in the context of strong industrial revolution 4.0 taking place globally. Accordingly, from now to 2020, the Government focuses on the following priority tasks:

Firstly, accelerate the building and perfecting of a comprehensive and comprehensive legal basis for the deployment and development of e-government.

According to the experience of developed countries on e-government, e-government institutional foundation must go ahead, while we still lack many regulations and policies. Therefore, from now until 2019, it is necessary to promulgate Decrees on data sharing; about protecting personal data; on electronic authentication; on protecting personal data and ensuring the privacy of individuals; on the reporting regime between State administrative agencies. Promptly issue a Decree on investment in information technology application suitable to the characteristics of this field, replacing Decree No. 102/2009 / ND-CP on investment in IT application in agencies' activities. State and Decision No. 80/2014 / QD-TTg of the Prime Minister on hiring information technology services. In the coming time, it is necessary to study and propose the development of the E-Government Law and the guiding documents to ensure the legal corridor for developing e-government based on open data, applying new technologies towards the digital economy, digital society.

Secondly, completing the national databases of a nature

In parallel with the establishment of institutions, it is necessary to focus on perfecting the building of national fundamental databases, especially the national database on population and land ... And to ensure the effectiveness of The use of these national databases requires the establishment of an integrated platform for data sharing between central and local information systems; electronic system of sending and receiving electronic documents; electronic identification authentication system; link between the Government's specialized digital signature authentication systems and public digital signatures; National payment gateway ... To ensure data and information   are   smoothed   across   levels   of   government.

Thirdly, establishing application systems to serve the people, businesses and government administration

Accordingly, the Government Office, ministries, branches and localities are actively constructing the national public service portal and implementing the one-stop information system connecting the public service portal. Phuong; This is an important system to connect the Government with people and businesses,

demonstrating the service spirit of the Government. The national public service portal to progress towards is a consistent, complete and friendly digital presence of the Government to serve citizens and businesses.

To serve the management and administration of the Government, in the coming time, undocumented Government Information Systems; Electronic system of policy consultations; The national reporting and information system towards the construction of a Steering and Executive Center of the Government and the Prime Minister is being researched and set up.

Fourthly, review, rearrange and mobilize all resources both financially and humanly

In recent years, the Government has made certain investments in the application of information technology. However, the scattered investment projects have not created a fundamental change to build e-government. In the coming time, in order to improve investment efficiency, it is necessary to review, rearrange and mobilize resources to implement the priority tasks of e-government development, adjust specific investment mechanisms for the information technology, and enhance socialization to promote the effectiveness of public - private cooperation in this work. At the same time, it is necessary to organize training, training, exploitation and use of information systems, using online public services at levels 3 and 4 for people, businesses and researching and developing incentive mechanisms to attract talents to participate in building and developing e-Government.

We also need to improve the efficiency of communication, awareness of e-government, digital economy, digital infrastructure through the implementation of communication programs to raise awareness of changing behavior and creating habits and consensus of all parties on developing e-Government.

Fifthly, promote the leading role, improve enforcement efficiency and accountability

Expressing his determination to build the E-Government, the Prime Minister directed the establishment of the National Committee on E-Government on the basis of consolidating the National Committee on the application of information technology by the Prime Minister. The government is the Chairman of the Committee. The Committee has members who are ministers directly related to the tasks in building e-government to engage across ministries, branches and localities in implementing the tasks. At the same time, the Committee has the participation of representatives of the private sector to promote the effectiveness of public-private cooperation in implementing this task. The tasks of implementing E-Government will be assessed in association with the individual responsibilities of the heads of each ministry, sector and locality and measured through the set of efficiency evaluation criteria and quality measurement results of building an e-government to ensure accuracy and fairness through the Commission's Task Force.

Building an e-government towards a digital government, the digital economy is a major policy that needs to be promoted in the coming time. In order to achieve the set goals, it is necessary to get involved with the high determination of the entire political system to create a new way of operating, a new way to contribute significantly in promoting development, widely applying information technology to socio-economic development and national defense; make the most of the benefits of digital technology, ensure fast and sustainable development of the country.

The Government Office has just released a Report on the implementation of e-government construction since 2018.

The report stated that the implementation of e-Government in the past time under the direction of the Prime Minister has promoted the focus, unity in direction and deployment, raising awareness of agencies. in the implementation, mobilize the participation of the private sector and Vietnamese experts at home and abroad. The orientations in implementing e-Government in the past year have been evaluated by international organizations and experts as being in the right direction and consistent with the current trend of e-government development in the world.

In addition, e-Government platform systems have been generally recognized and have been implemented or tested for a number of platform systems. Implementation systems play an important role in modernizing state management activities and serving people and businesses and receive the support and active participation of ministries, sectors and localities as the recognition of people and businesses.

Besides the achieved results, the implementation of e-government has some shortcomings and limitations. Specifically, the system of connection, interconnection, data sharing integration (NGSP) has been slowly implemented, electronic data integration and integration platforms (LGSP) in ministries, branches and localities have not been implemented. Some important national databases in building e-Government such as: population, land, finance are still slow to implement, leading to the sharing and sharing of unrealized information systems affecting e-government deployment. The handling, exchanging, sending and receiving of electronic documents internally and among state agencies have not yet been effective; Document management and operating systems of a number of different ministries, branches and localities.

Online public services are individually designed, discrete, unfriendly, and do not take people and businesses as the center. Although the number of public services at level 3 and 4 implemented in ministries, branches and localities is increasing, the number of online profiles for each service is very low; even many services do not generate any. Profile online. The process of handling administrative procedures does not ensure the science, causing a burden for civil servants. In addition, the budget for investment in information technology application, information system construction in association with administrative reforms is still limited; the financial investment mechanism is slow to be modified, so it cannot meet current needs of modernizing the administration; it is not enough to create leverage to improve the governance efficiency of the Government, as well as to enhance the quality of public services.

III.   Early issuance of a Resolution on key solutions for e-government development in 2018-2020

In order to promote the construction of e-Government in 2019, the Government Office proposes the Government and the Prime Minister to promulgate the Government's Resolution on a number of key tasks and solutions for e-government development in the the period 2018-2020, with orientation to 2025; approve the Project on building information system for Government meetings and handling work (eCabinet).

In addition, continue to direct the ministries, branches and localities to urgently set up the E-Government Steering Committee / E-Government in their respective agencies headed by Ministers, Heads of ministerial-level

agencies and Government-attached agencies. The Chairman of the People's Committee of provinces and cities directly under the Central Government is the Head of the Committee to promote the role of the head and the establishment is completed in January,2019.

Expeditiously build a public service portal, ministerial-level and provincial electronic one-stop information system in close compliance with the requirements of the Government's Decree No. 61/2018 / ND-CP of April 23, 2018 and other documents. Guidelines; complete the connection, formally send and receive electronic documents in accordance with the provisions of the Prime Minister's Decision No. 28/2018 / QD-TTg of July 12, 2018 and guiding documents; seek and mobilize resources from the private sector and international organizations; creating maximum conditions for private sector enterprises to participate in the process of building e-government and e-government.

The Ministry of Information and Communications will accelerate the development of a decree on connectivity, data sharing and the Decree on electronic authentication and identification; completing the Vietnam E-Government Architecture Framework (version 2.0) and E-Government architecture in the period of 2018-2025 to submit to the Prime Minister for consideration and approval; The Ministry of Public Security speeds up the construction of a national database on population and soon submits to the Government a decree on personal data protection; The Ministry of Natural Resources and Environment will accelerate the construction and soon put into operation the National Land Database.

Results of building e-government in Vietnam today and solutions to enhance the application of artificial intelligence in building e-government The Government Office has just reported the implementation situation and implementation results of building an electronic government, updated to the second quarter of 2018. 6 national databases that are prioritized for implementation include business registration, population, land, finance, insurance. [7]

According to the report, among the six priority national databases for implementation of enterprise registration data implemented since 2010, more than one million enterprises have been updated to date. However there is no mechanism for sharing and use for many systems yet.

The remaining national databases on population, land, finance, population and insurance are in the development stage.

Specifically, the Ministry of Public Security implemented the project "Building the National Database on Population". In the first quarter of 2018, the Ministry approved adjusting and estimating a number of items, organizing the implementation of bidding packages; direct, guide and urge local police units to organize conferences, professional training on population information collection..

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[7] Report No. 6170 / BC-VPCP, June 29, 2018 on the implementation situation and implementation results of E-Government construction in the first quarter, 2019.

The Ministry of Public Security has also organized a connection between the Citizens' Identity Center and the National Database of Residential Database for the issuance of personal identification numbers. As of May 12, the Ministry of Public Security in collaboration with the Ministry of Justice issued 1,176,338 identification numbers for registered children.

Ministry of Natural Resources and Environment implements the project "Building the National Database of Land". Currently the project has completed the first phase, reaching the goals set out in the overall design. The ministry is considering the establishment of a land information system and an electronic land transaction model, in order to continue to build a unified national land database on a national scale.

The Ministry of Finance has approved the project "Building the National Database on Finance" (2016); establishing the Steering Committee, promulgating the plan of implementing the project (2017); Promulgate a circular on the system of electronic lists shared in the field of finance.

Currently, the Ministry of Finance is building the National Database of Finance architecture as a basis for construction, expected to be completed in September 2018. This national database will be built as an open financial data platform, applied the appropriate technologies of the fourth industrial revolution, and apply artificial intelligence (AI) to big data to improve forecasts and planning.

Vietnam Social Insurance has completed and centralized management of the household database participating in health insurance under the Social Insurance code, with information of more than 93 million people, equivalent to about 25 million households across the country. This is considered a premise for Vietnam Social Insurance to issue social insurance books, electronic health insurance cards and is the most important component of the National Insurance Database [8].

In addition, the Government Office said that there are systems operating stably such as National Database of Legal Documents, National Database of Industrial Economy and Trade, Database. National administrative procedures ... Looking at the achievements of countries in the world, it can be said that implementing E-Government is an inevitable trend, improving the transparency in the Government's activities, repelling corruption, contributing to economic development, improving competitiveness, labor productivity and a way to create prosperity for the nation. In order to have a strong breakthrough, Vietnam needs to research, learn from the world's experience and build concrete, direct and effective implementation steps. With this spirit, at present, the Government Office is presiding over the development of a new draft Resolution of the Government on a number of key tasks and solutions for the development of e-Government in 2018-2020, with orientations by 2025. This will be a specific orientation to deploy the tasks of building an e-government towards the digital economy and digital society in the context of strong industrial revolution 4.0 taking place globally. Accordingly, from now to 2020, the Government focuses on the following priority tasks:

- Accelerate the building and perfecting of a complete and comprehensive legal basis for the implementation and development of e-government:

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[8] Report No. 6170 / BC-VPCP, June 29, 2018 on the implementation situation and implementation results of E-Government construction in the first quarter, 2019.

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- Setting up application systems to serve the people, businesses and administration and administration of the Government

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4. Report No. 6170/BC-VPCP, June 29, 2018 on the implementation situation and implementation results of E-Government construction in the first quarter, 2019