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Research Article

Orientations and Solutions to Improve State Management of Science and Technology in Vietnam in the Context of Building E-government and Digital Government

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Abstract

From a once underdeveloped country, Vietnam has been rising in the new era—an era of deep integration and a steadily affirmed position on the international stage. This strength is closely linked to science and technology. In recent years, the Party and the State have introduced numerous policies to promote the development and application of science and technology, actively participating in the Fourth Industrial Revolution and achieving significant results. In the context of a complex and evolving global landscape—ranging from climate change and geopolitical tensions to resource depletion and population aging—the issuance of Resolution 57-NQ/TW on December 22, 2024, by the Politburo marks a strategic move. This resolution on breakthroughs in science, technology, innovation, and national digital transformation affirms the correct orientation of science and technology in Vietnam's socio-economic development. It holds profound significance for Vietnam's economic growth model, as the country transitions from an economy based on cheap labor and natural resources to one based on knowledge and high added value. However, Vietnam must further promote science and technology as a key driving force to enhance productivity, competitiveness, and its position on the global stage. This article provides an orientation for Vietnam's current development of science and technology and proposes solutions to improve state management effectiveness in the context of building an e-government and a digital government.

Keywords

Guiding Viewpoint, Solution, Science and Technology, Vietnam

1. Introduction

The development of science and technology plays a particularly important role in the process of nation-building and national defense. The Resolution of the 13th National Party Congress affirms: *"Continue to thoroughly grasp and consistently implement the policy that science and technology are the top national priorities and the key driving forces for developing modern productive forces and innovating models. Establish a strategy for developing science and technology in alignment with global trends and national conditions, meeting the requirements of national construction and defense in the new era, while adapting to the Fourth Industrial Revolution."* This reflects a new and significant perspective,

demonstrating the Party's strategic vision regarding the role of science and technology in the country's development. State management of science and technology in the context of building e-government and digital government holds a similarly crucial position. Consequently, increasing emphasis has been placed on state management of science and technology, particularly as Vietnam strengthens the implementation of digital government transformation. The goal is that, by 2025, 50% of state management agencies' inspection activities will be conducted through digital platforms and management information systems, while the digital economy will contribute 20% of the national GDP, positioning Vietnam among the top 70 countries globally in digital transformation [1].

However, the results of science and technology development remain fragmented in terms of content, intellectual resources, and financial support. As a result, major scientific and technological challenges in the country remain unresolved. Particularly in the current context of e-government and digital government development, Vietnam's science and technology sector faces even greater responsibilities. It must develop fundamental and comprehensive solutions to:

1) Transform the management and operational activities of the government.
2) Enhance the production and business processes of enterprises.
3) Adapt the daily lives and work of citizens
4) Establish a secure, inclusive, and human-centered digital environment.

These challenges present significant difficulties for state management in the coming years, necessitating pioneering efforts by the government in testing new technologies and models.

Drawing from research materials, this article identifies key guiding viewpoints and proposes solutions for science and technology development within the framework of e-government and digital government in Vietnam.

Research Questions:
1) What are the views and orientations of state management of science and technology in the context of e-government and digital government development?
2) What are the similarities between e-government and digital government?
3) What are potential solutions to enhance state management of science and technology within the framework of e-government and digital government?

2. Overview of E-Government and Digital Government

According to the Digital Transformation Handbook, the concept of e-government refers to the application of information technology to enhance efficiency and effectiveness in operations, serving citizens and businesses better. In other words, it is the process of digitizing government activities. Simply put, e-government is characterized by the "four NOs": the ability to conduct meetings without physical presence, process documents without paper, handle administrative procedures without direct contact, and facilitate cashless payments [2].

According to the Organization for Economic Cooperation and Development (OECD) in 2014, digital government is defined as "the use of digital technology as an integral part of a government modernization strategy to create public value" and "a government ecosystem that includes government members, non-governmental organizations, businesses, and social organizations" [3].

The similarity between e-government and digital government is that both models aim to help government agencies innovate and operate effectively and efficiently, ensuring transparency, accountability, and convenience in all interactions between the government and citizens. They also facilitate citizens in exercising their democratic rights and participating in state management.

Although building e-government and digital government presents numerous challenges for many countries, especially developing nations like Vietnam, the benefits they bring to citizens, businesses, society, and the government itself are undeniable. These benefits include simplifying and integrating government services, significantly reducing the time spent by citizens, businesses, and organizations in dealing with the government, supporting the domestic business environment for the private sector and foreign investment, increasing government revenue through better tax control and collection, enhancing transparency and convenience while reducing costs and corruption, improving the skills of government officials, and raising public awareness and digital literacy.

Furthermore, e-government and digital government promote greater citizen participation in governance. Through digital networks, people in remote areas can more easily send and receive information from the government. Additionally, by expanding interaction and information-sharing capabilities, e-government can enhance "citizen-to-citizen" (C2C) engagement, providing opportunities for individuals with shared interests and concerns to connect despite geographical barriers.

3. Research Methods

Based on research questions and theoretical frameworks, this study employs analysis, synthesis, statistical methods, and the use of secondary sources, specifically:

1) The method of analysis and synthesis is used to collect legal documents on science and technology, resolutions from Communist Party congresses, and published research studies. These materials are categorized by theme and year to compile and evaluate current legal

documents.

2) The statistical classification and analysis of secondary sources include laws and legal documents on science and technology from 2013 to the present, as well as Party Congress documents, to propose appropriate policy directions for the development of e-government and digital government.

3) The analysis and synthesis of information from previous studies aim to propose solutions for improving state management in science and technology.

4. Viewpoints and Orientations for State Management of Science and Technology in the Context of Building E-Government and Digital Government

4.1. The State Management of Science and Technology

As outlined in the Resolution of the 13th National Party Congress, reflects the Party's new approach to promoting innovation, transfer, application, and strong development of science and technology. Several key updates have been introduced:

1) Regarding the topic and emphasis: Compared to the 12th Congress, this resolution adds the phrase "promoting innovation, transfer, application, and strong development of science and technology" to emphasize the crucial role of innovation [4]. In the 10-year Socio-Economic Development Strategy (2021–2030), this issue is addressed in Point 2, Section V—Directions, Tasks, and Solutions for Socio-Economic Development—under the title: "Strongly developing science, technology, and innovation to create breakthroughs in productivity, quality, efficiency, and competitiveness of the economy" [5] In comparison, the Socio-Economic Development Strategy (2010–2020) presented this issue in Point 10, Section IV—Orientation for Socio-Economic Development, Innovation of the Growth Model, and Economic Restructuring—under the title: "Developing science and technology as the key driving force for rapid and sustainable development."These documents further clarify the need for a comprehensive science and technology development strategy that aligns with global trends and national conditions, while also meeting the requirements of national development and security and adapting to the Fourth Industrial Revolution. The resolution reaffirms the policy that science and technology remain a top national priority and a key driving force for modernizing productive forces, innovating the growth model, and enhancing productivity, quality, efficiency, and

competitiveness [6].

2) This Party document underscores the importance of prioritizing the transfer and application of scientific and technological advancements in economic, cultural, and social development, human resource enhancement, and national defense and security. It calls for reviewing and reorganizing the science and technology system, combined with a comprehensive reform of human resource policies, prioritizing the attraction of talented scientists committed to national development and security. The resolution also encourages the application and development of cutting-edge technologies, particularly in digital technology, 5G and post-5G connectivity, artificial intelligence (AI), blockchain, 3D printing, the Internet of Things (IoT), cybersecurity, clean energy, and environmental technology, to improve national productivity and efficiency.

3) The 12th Congress document previously stated: "Continue to strongly innovate and synchronize the management mechanism and organization of science and technology activities" [7]. The 13th Congress document replaces the term "mechanism" with "institution", emphasizing the need to synchronize institutions and policies related to the application and development of science and technology. It calls for a transformation of the investment and financial management mechanisms for science and technology, shifting towards a results-based funding model that prioritizes efficiency and outcomes. All sectors and administrative levels are responsible for promoting the development and application of scientific and technological advancements in their respective fields [8].

4) Emphasizing the need to promote international cooperation and integration, enhancing national innovation capacity, with the mission of building and protecting the country and human development as the ultimate goal. "Promptly addressing obstacles and effectively implementing policies on training, fostering, attracting, valuing, and rewarding scientific and technological personnel, especially leading experts and talents in science and technology" [9]. Strengthening international cooperation and integration in science and technology. Establishing policies to support international academic exchanges and cooperation, promoting innovation. Diversifying international partnerships, prioritizing strategic partners. Integrating international scientific and technological cooperation with all aspects of socio-economic life, national defense, and security. At the same time, clearly identifying the key focus areas for international cooperation in science and technology to meet the country's development needs in the coming period, which include: "Promoting integration and international cooperation in science and technology, diversifying partnerships, selecting strategic

partners among countries with advanced science and technology," closely linking international cooperation in science and technology with international economic cooperation. Developing a network to connect Vietnamese talents, attracting the contributions of the Vietnamese scientific community abroad [10].

5) Developing key Clearly defining the principles for transforming investment mechanisms and financial management in science and technology. This transformation is based on a principle of demand-driven investment, focusing on final results and effectiveness. Increasing investment in science and technology development through market-based mechanisms, leveraging resources from the state, businesses, and individuals. Supporting and encouraging individuals, organizations, and enterprises to invest in research and development, technology transfer, and the application of scientific and technological advancements. Ministries and local authorities are responsible for promoting the development and application of scientific and technological advancements. The key focus is on innovating operational mechanisms and criteria for evaluating the effectiveness of research, scientific management, technology, and innovation. The effectiveness of science and technology will be assessed based on improvements in the technological level of the economy. Facilitating research and technology transfer in alignment with market mechanisms, enhancing the autonomy of public scientific and technological research institutions: "Restructuring and improving the capacity and efficiency of research institutions; promoting scientific and technological research within businesses, universities, and training institutions in line with market demands." At the same time, encouraging foreign enterprises to establish research and development, innovation centers in Vietnam. Strengthening the connection between enterprises and research institutes, universities to enhance the ability of enterprises to absorb, master, and gradually contribute to the creation of new technologies [11].

6) scientific and technological sectors that directly address urgent issues, in line with national conditions and resources.

Enhancing the capacity of the national innovation system, restructuring scientific and technological research programs to center around enterprises and serve the national development and security agenda effectively. Developing digital infrastructure and ensuring cybersecurity, enabling citizens and businesses to access digital resources safely and conveniently, and establishing large-scale databases. Emphasizing the role of enterprises in innovation; setting objectives and priority technology sectors for future development [12]. Striving to achieve a 40% innovation adoption rate among enterprises by 2030. Promoting the growth of

science and technology enterprises and high-tech enterprises. Strengthening the network of intermediary service organizations for technology brokerage, assessment, and transfer. Enhancing the protection and enforcement of intellectual property rights. Expanding and improving the system of standards and regulations to align with international standards.

4.2. State Management Orientation for the Development of Science and Technology in the Context of E-Government and Digital Government

The development of science, technology, and innovation management in the context of e-government and digital government is an inevitable trend. Vietnam must also adapt and innovate in state management of science, technology, and innovation by 2030, with a vision to 2045, specifically:

1) Improving the legal framework for science, technology, and innovation in line with market mechanisms and international practices; synchronizing legal regulations and policies related to science, technology, and innovation by removing bottlenecks and barriers to create the most favorable conditions for development. Strengthening breakthrough policies and tools to encourage and promote the application of new technologies and innovation to enhance business competitiveness. Improving the national innovation system, sectoral and regional innovation systems, high-tech zones, networks of innovation centers, startup ecosystems, intermediary organizations, and support institutions for innovation. Enhancing state governance capacity in scientific, technological, and innovation activities, especially in policy formulation and implementation. Strengthening decentralization in state management to ensure streamlined, effective, and efficient administration.

2) Restructuring the public science and technology organizations in line with national, sectoral, and regional priorities, linking research with education and training. Developing domestic human resources and attracting foreign experts, especially overseas Vietnamese with high creativity, to meet the requirements of industrialization in the new context. Continuing investment in and effective utilization of high-tech zones, agricultural technology zones, information technology hubs, and priority research fields. Strengthening the national science and technology information system with a focus on digital transformation.

3) Developing the science and technology market, increasing the proportion of domestic technology supply, and boosting intermediary activities in the market to integrate with commodity, labor, and financial markets. Promoting technology transfer and the application of advanced technologies while enhancing the ability to

absorb and innovate technology, business management capacity, workforce skills, digital transformation, production processes, and business models. Increasing the number, quality, and efficiency of intellectual property assets, emphasizing the development and protection of corporate intellectual property. Timely development of national standards and regulations for new technologies, export products, and key products to ensure market compliance and promote innovation.

4) Enhancing research and widespread application of information and communication technology (ICT), focusing on cloud computing, the Internet of Things (IoT), artificial intelligence (AI), blockchain, and virtual reality. Developing and utilizing big data to drive digital transformation, the digital economy, digital government, and digital society. Researching and mastering cybersecurity to safeguard national security, organizational interests, and citizens' privacy while effectively preventing cyberattacks. Promoting technology transfer and self-reliance in designing and manufacturing telecommunications networks, mobile devices, and 5G and post-5G equipment. Advancing quantum technology and terahertz technology.

5) Technology transfer and the development of advanced materials for industries and construction, such as functional materials with adjustable physical properties, advanced polymer and composite materials, high-performance metal alloys, protective coatings resistant to extreme conditions, advanced ceramics, smart materials, and transparent materials for electromagnetic waves. Developing 3D printing materials, chemicals, and materials for mechanical engineering, supporting industries, petrochemicals, and recycled materials for infrastructure projects. Enhancing agricultural materials, including controlled-release fertilizers, biopesticides, smart packaging, greenhouse materials, and soil-improvement materials. Advancing biomedical materials such as implants, targeted drug delivery materials, biodegradable composites for cartilage and bone regeneration. Promoting environmentally friendly biodegradable materials to replace plastics. Strengthening materials for defense and security, including ultra-durable, high-temperature, high-pressure materials, and special alloys for control systems. Developing electronic and photonic materials for telecommunications, electrical engineering, and energy-saving applications, particularly optical fiber materials.

6) Mastering and developing advanced smart automation technologies, including the design and manufacturing of integrated equipment and production lines in oil and gas, hydropower, thermal power, shipbuilding, and mineral extraction. Advancing energy-efficient equipment, large-scale complex systems, and high-reliability automation technologies. Promoting 3D printing, reverse engineering, and rapid prototyping for manufacturing industrial equipment, electronics, and high-performance composites. Developing automation technologies for measurement, information processing, and production control. Producing microcontroller chips and high-power semiconductor components for automation systems, robotics, and auxiliary equipment. Researching and developing highly integrated and autonomous equipment for national defense and security.

7) Fostering innovation in key economic regions by leveraging local advantages. For example: The Red River Delta and Southeast regions focus on industrial parks and high-tech industries. The Northern Midlands and Mountainous region specializes in organic agriculture combined with tourism. The North Central and South Central Coast regions integrate agriculture and marine economy. The Central Highlands emphasizes agroforestry, agricultural processing, and ecotourism. The Mekong Delta prioritizes agricultural production, agricultural processing industries, seed centers, and technology transfer. Strengthening research on culture, religion, human development, and climate change adaptation tailored to regional characteristics. Establishing innovation systems aligned with value chains, industrial clusters, and startup ecosystems in regions with favorable conditions, including creative human resources, educational institutions, research centers, and technical infrastructure.

8) Ensuring that science, technology, innovation, and digital transformation develop sustainably, contributing to Vietnam becoming a high-income, developed country. The digital economy should account for at least 50% of GDP, positioning Vietnam as a regional and global industrial technology hub. Vietnam aims to be among the top 30 countries in global innovation rankings and attract at least five leading global technology corporations to establish research and production facilities in the country [13].

5. Some Solutions

Continue to fully institutionalize and effectively implement the resolutions, directives, and conclusions of the Central Executive Committee of the Party, the Politburo, and the Secretariat on science and technology. Focus on implementing the following solutions:

First, continue to develop and improve legal documents on science and technology; further refine the provisions of the Law to promptly and fully institutionalize the Party's policies and guidelines on the development of science, technology, and innovation. Institutions (legal systems, management mechanisms, and operational rules) serve as the "backbone" of all economic and social activities. In this regard, efforts should be concentrated on amending and supplementing

urgent issues to remove obstacles related to: the establishment and operation of science and technology organizations; strengthening management and enhancing the role of science and technology organizations; incentives for individuals engaged in science and technology to motivate scientific and technological personnel; management of science and technology tasks; investment and financial mechanisms to support the development of science, technology, and innovation; and promoting innovation and startup ecosystems. Renaming the Law to expand its scope to innovation activities is also necessary. Additionally, policies should be supplemented to encourage the application and innovation of technology, ensuring a comprehensive legal framework that fosters science, technology, and innovation activities. For organizations, individuals, and businesses, the state's policy reforms will help enhance their roles and responsibilities in contributing to science, technology, and innovation. It is essential to accurately identify the key forces participating in the national innovation system to develop appropriate legal interventions, fully unleashing the creative potential of each entity, particularly in knowledge creation (research institutes, universities, hospitals, enterprises, and citizens—with research institutes and universities being the primary entities), knowledge application (businesses must be the central entity), and knowledge dissemination (the role of academic journals for specialized knowledge and science museums and mass media for general science knowledge). A favorable and synchronized legal corridor should be established for technological application, innovation, and startup ecosystems, particularly by unlocking resources and improving innovation efficiency in the private sector.

A comprehensive review of all regulatory documents related to science and technology management in the context of e-government and digital government is required. The objective is to assess and eliminate conflicting or overlapping regulations while revising and supplementing new policies on science, technology, and innovation to align with market mechanisms, international practices, and standards, ensuring consistency, efficiency, and effectiveness in implementation.

Second, a breakthrough in innovative thinking, research, and the development of specific and superior policies, including experimental mechanisms for new policies with calculated risks, is needed to promote the development, application, and transfer of foundational, priority, cutting-edge, core, and emerging technologies, as well as digital transformation. Emphasis should be placed on applying scientific and technological advances to the research and development of competitive, high-value, environmentally friendly products that effectively integrate into global production, supply, and value chains.

Third, unify state management of science, technology, and innovation, vigorously promoting innovation in conjunction with scientific and technological development. Enhance coordination and synergy in formulating and implementing policies to foster science, technology, and innovation

development. Streamline administrative structures, focusing on policy planning, strategy formulation, and training and capacity-building for science, technology, and innovation management personnel at all levels.

Fourth, reform the management and organization of science and technology institutions; merge or dissolve ineffective science and technology organizations according to a suitable roadmap to optimize the structure and efficiency of these institutions. Establish public-private partnership mechanisms to develop modern digital infrastructure, primarily utilizing state resources while attracting private sector investment from both domestic and international sources in establishing innovation and startup centers. The role of state management agencies should focus on support functions and minimizing barriers throughout the process of establishment, operation, and growth. Policies should be designed to encourage meaningful engagement, with the effectiveness of self-sustaining innovation and startup centers serving as key performance indicors.

Develop and refine mechanisms and policies to attract foreign scientists to participate in research at Vietnamese science and technology organizations effectively. These policies should minimize administrative barriers and ensure a conducive environment for foreign experts. Enhancing scientific and technological capacity within public institutions requires retraining the existing workforce while leveraging market-driven metrics to assess the quality of scientific and technological human resource training. Strengthen linkages between science and technology institutions and businesses and improve collaboration mechanisms between stakeholders, including public research organizations, enterprises, and government agencies. Pilot mechanisms allowing businesses to experiment with new technologies under government oversight, including liability exemptions for enterprises and individuals in cases of objective economic losses due to new technology or business model experimentation. Promote regionally connected scientific and technological activities and expand integration with domestic and international technology markets.

Continue implementing policies to attract and retain high-quality human resources in science and technology. Accelerate the adoption of scientific and technological advancements, particularly those from Industry 4.0, such as digital technology, virtual reality, and the Internet of Things, in managing and operating public science and technology institutions. Special focus should be given to digital transformation in managing research projects at various levels, reducing administrative procedures, increasing transparency, and serving the needs of researchers, businesses, and the public. Strengthen research institutes and universities to become leading research entities, integrating research, application, and education. Leverage information technology to manage scientific, technological, and innovation resources, connecting and supporting networks of managers, scientists, research institutes, universities, and businesses nationwide.

Fifth, enhance international cooperation and integration in science and technology in the era of e-government and digital governance. Promote deep integration and expand international cooperation, particularly with strategic partners, while capitalizing on opportunities from multilateral and bilateral trade agreements. Foster collaboration in research, training, and consultancy with foreign organizations and international entities to access, transfer, and apply advanced technologies and international standards. Establish clear and unified regulations to ensure technological security and prevent the importation of outdated, harmful technologies that could negatively impact business operations, national security, and the environment. Simultaneously, review and eliminate legal provisions that hinder international collaboration in science and technology.

Science and technology cooperation should be integrated into national foreign policy to enhance Vietnam's scientific and technological partnerships, leveraging diplomacy in economics, security, and education to attract advanced knowledge and technology into the country. Establish foreign-invested science and technology institutions in Vietnam and attract international experts and scientists for research, technological development, and capacity-building. Organize exhibitions, forums, and technology fairs to facilitate the introduction and transfer of research results and technologies. Develop a network of Vietnamese science and technology representatives abroad. Strengthen technological capability and knowledge transfer between domestic enterprises and foreign-invested businesses in Vietnam while adhering to international agreements and treaties to which Vietnam is a signatory.

Sixth, continue developing scientific and technological human resources in the context of e-government and digital governance; enhance education and training in science and technology by improving computer skills, foreign language proficiency, and fostering creative design capabilities through practical projects in schools—especially through STEM (Science, Technology, Engineering, Mathematics) and STEAM (Science, Technology, Engineering, Arts, Mathematics) education [14]. Increase investment in and enhance the quality of education and training to ensure a high-quality workforce meets the demands of scientific and technological development. Establish attractive financial incentives, scholarships, and tuition policies to encourage students to pursue key fields such as mathematics, physics, biology, chemistry, and engineering, particularly at the postgraduate level. Develop and implement talent development programs in these fields.

Encourage businesses to develop technological management and enterprise leadership skills. Promote the socialization and diversification of training programs for technology management and business administration at various levels. Integrate training on management, economics, innovation, entrepreneurship, intellectual property, standards, measurement, quality, and productivity into vocational and university curricula. Establish policies to attract and retain top scientists and experts, both domestically and internationally, through special provisions on citizenship, property ownership, income, and working conditions. Build, connect, and expand a network of domestic and international experts and scientists.

6. Conclusion

For Vietnam to "rise" in the new era, several solutions must be implemented, including reviewing and synchronizing legal normative documents, developing scientific and technological human resources, innovating the organization and activities in the field of science and technology, and enhancing international cooperation in science and technology. Prominently, five trends will influence the formulation of goals and directions for science and technology in the context of Vietnam's e-government and digital government, specifically: (i) The potential and level of science and technology will reach an advanced status in many key fields, placing Vietnam among the leading nations in the upper-middle-income group, with some scientific and technological fields achieving international standards. (ii) Science and technology will significantly contribute to the development of Vietnamese cultural, social, and human values, helping maintain the Human Development Index above 0.7 [15]. (iii) The science and technology organizational system will be restructured to ensure effectiveness and efficiency, closely linking research, application, and training. Between 40 to 50 science and technology organizations will be ranked at the regional and global levels. (iv) Advanced and modern digital technology infrastructure with ultra-wide capacity and bandwidth will be on par with developed nations. Vietnam will gradually master strategic technologies and digital technologies such as AI, IoT, Big Data, Cloud Computing, Blockchain, semiconductors, quantum technology, nanotechnology, and mobile communications (5G, 6G), with nationwide 5G coverage. (v) The development of digital government will reach a globally advanced level. Vietnam will be among the leading countries in cybersecurity, data security, and data protection.

Abbreviations

AI	Artificial Intelligence
GDP	Gross Domestic Product
OECD	Organization for Economic Cooperation and Development
IoT	The Internet of Things
R&D	Nghiên cứu và phát triển

Author Contributions

Luong Ngoc Dung is the sole author. The author read and approved the final manuscript.

Conflicts of Interest

The author declares no conflicts of interest.

References

[1] Decision No. 749/QĐ-TTg, dated June 3, 2020, approving the "National Digital Transformation Program to 2025, with orientation to 2030."

[2] Digital Transformation Handbook, pp. 134-135.

[3] Organisation for Economic Co-operation and Development (OECD), 2014.

[4] Documents of the 12th National Congress.

[5] Decision No. 569/QĐ-TTg dated May 11, 2022, of the Prime Minister on the Strategy for Science, Technology, and Innovation Development to 2030.

[6] Resolution No. 52-NQ/TW dated September 27, 2019 of the Politburo on a number of guidelines and policies to proactively participate in the Fourth Industrial Revolution

[7] Documents of the 12th National Congress.

[8] Documents of the 13th National Congress.

[9] Decision No. 899/QĐ-TTg dated July 31, 2023 by the Prime Minister: Approval of the National Strategy on Attracting and Utilizing Talents toward 2030, with a Vision to 2050.

[10] Resolution No. 50/NQ-CP dated April 17, 2020 by the Government on promulgating the Government's Action Program for implementing Resolution No. 52-NQ/TW dated September 27, 2019 of the Politburo on a number of guidelines and policies to proactively participate in the Fourth Industrial Revolution

[11] Decision No. 118/QĐ-TTg dated January 25, 2021 by the Prime Minister: Promulgation of the National Technology Innovation Program until 2030.

[12] Decision No. 665/QĐ-BKHCN dated April 10, 2023 by the Ministry of Science and Technology: On the 2023 Enterprise Innovation Survey.

[13] Resolution No. 57-NQ/TW dated December 22, 2024, of the Politburo on breakthroughs in the development of science, technology, innovation, and national digital transformation.

[14] Decision No. 279/QĐ-TTg dated February 26, 2021 of the Prime Minister on approving the task of planning a network of public science and technology organizations for the period 2021-2030, with a vision to 2050.

[15] Decision No. 411/QĐ-TTg dated March 31, 2022 of the Prime Minister approving the Strategy for the development of the Digital Economy and Digital Society to 2025, with a vision to 2030.

Biography
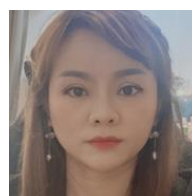
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Research Field

Luong Ngọc Dung: Research field Public Management - State management of higher education in the context of digital transformation – International Conference.