

The World Context and Requirements for Knowledge Economy Development in Vietnam

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Abstract

Today, the knowledge economy is a factor that has a profound influence on the development of countries around the world. The Communist Party of Vietnam has affirmed the importance and significance of developing a knowledge economy associated with the Fourth Industrial Revolution in the cause of innovation, realizing the goal of early socio-economic development, soon turning Vietnam into a modern industrial country. The article objectively and comprehensively analyzes the international and domestic contexts affecting the promotion of knowledge economy development in Vietnam.

Keywords: Industrialization, Modernization, Knowledge Economy, Knowledge Economy Development

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Introduction

In the trend of globalization and international integration, the knowledge economy affects countries around the world, including Vietnam. Over the past few decades, Vietnam has clearly recognized the need to develop its economy in the direction of industrialization and modernization to escape from underdeveloped countries and gradually improve people's lives. Industrialization, modernization and knowledge economy development were officially identified by the Communist Party of Vietnam from the 7th Central Conference, Session VII (July 1994): "Prioritize the application and development of technologies advanced as information technology, serving the requirements of electronicization and computerization of the national economy" (CPVN, 2007). In June 1996, the 8th Congress of the Communist Party of Vietnam continued to emphasize: "Application of information technology in all fields of the national economy has created a clear change in productivity and quality and efficiency, forming a national information network, linking with the international information network" (CPVN, 2007).

The 9th Congress of the Communist Party of Vietnam (2001) commented: "The 21st century will continue to have many changes. Science and technology will advance by leaps and bounds. The knowledge economy plays an increasingly prominent role in the process of developing the productive forces" (CPVN, 2007). In the socio-economic development strategy for the period 2011-2020, the Communist Party of Vietnam continues to determine: "The knowledge economy is developing strongly, therefore people and knowledge are becoming the main advantages of each country" (CPVN, 2007). On a practical basis, the 10th, 11th, 12th Congresses of the Communist Party of Vietnam all emphasized the position, role, content and measures to develop the knowledge economy in the country's innovation cause.

Thus, Vietnam has been deeply aware and constantly emphasized the importance of the knowledge economy in the cause of industrialization and modernization of the country,

identifying it as a trend and law of development. Up to now, Vietnam has achieved many achievements in all socio-economic fields. However, besides the advantages, in the current context, with the Fourth Industrial Revolution, especially digital technology and artificial intelligence developing strongly, creating both opportunities and challenges for every country and people. Vietnam shows that it is necessary to quickly keep pace with the trends of the times, it is necessary to promote industrialization and modernization associated with the development of a knowledge economy. Developing a knowledge economy, applying the achievements of science and technology in all fields to increase productivity, improve quality, efficiency and create competitiveness of the economy.

Based on reality, the 13th Congress of the Communist Party of Vietnam commented: "Science, technology, innovation and the Fourth Industrial Revolution are progressing very quickly, making breakthroughs and having far-reaching and multidimensional impact on a global scale. Science, technology, and innovation are increasingly becoming decisive factors for the competitiveness of each country. Digital technology will promote the development of digital economy and digital society; change state management methods, production and business models, consumption and cultural and social life"; "Rapid and sustainable development relies mainly on science and technology, innovation and digital transformation. We must innovate thinking and action, proactively grasp promptly and effectively take advantage of the opportunities of the Fourth Industrial Revolution associated with the process of international integration to restructure the economy and develop digital economy, digital society, considering this a decisive factor to improve productivity, quality, efficiency and competitiveness"; "Continue to promote industrialization and modernization based on the foundation of science, technology, innovation and technological achievements of the Fourth Industrial Revolution. Develop planning and development plans for the country, regions, sectors and fields in accordance with the country's realities to enhance the autonomy, adaptability and resilience of the economy. Promote the development of a number of key economic sectors and fields with great potential, advantages and room to serve as a driving force for growth in the spirit of catching up, progressing together and surpassing in some fields compared to the region and the world"; "Promote the development of digital economy, digital society, smart manufacturing, new production and business models, sharing economy, e-commerce" (CPVN, 2021).

Research overview

Regarding the concept of Knowledge Economy, currently in the world there are many similar views on the content. Below are some universal viewpoints used by many countries and organizations:

In 1996, the Organization for Economic Cooperation and Development introduced a comprehensive concept of the knowledge economy: "A Knowledge economy is an economy that increasingly depends directly on the production, distribution and use of knowledge and information". In 1999, the World Bank defined, "A Knowledge economy is an economy that effectively uses knowledge for economic and social development, including the acquisition and exploitation of global knowledge sources as well as adapt and create knowledge to use for specific needs. In 2000, the Asia Pacific Economic Cooperation Forum (APEC) introduced a newer and more specific concept: "A knowledge economy is an economy in which the production and distribution process and using knowledge to become the main driving force for growth, wealth creation and employment in all economic sectors. In 2001, the Organization for Economic Cooperation and Development (OECD) stated that "A knowledge economy is an

economy based directly on the creation, distribution and use of knowledge and information". Researcher Dang Huu believes that "A knowledge economy is an economy in which the production, dissemination and use of knowledge plays a decisive role in economic development, creating wealth and improving quality of life" (Huu, 2004). The Knowledge economy speaks of the decisive role of knowledge and technology in economic development, as a direct productive force (Tuan, 2004).

Thus, it can be seen that the knowledge economy has some common basic characteristics: The economy is mainly based on knowledge; The knowledge economy has a fast pace of operation and innovation, and creativity, becoming a direct driving force of development; Learning society is the basic method of development of the knowledge economy; Information technology in the knowledge economy is applied strongly, widely and effectively in all areas of social life. Information networks have become the most important infrastructure of society and the economy; The rate of knowledge production that changes life in economic, cultural and social aspects is very high; Knowledge economy is a globalized economy.

Methods

The article uses a number of methods such as: Method of inheriting secondary documents; Analytical synthesis method.

Results and Discussion

Vietnamese context facing the need to develop a knowledge economy

Over the past few decades, Vietnam's economy has had many successes such as consistently expanding international cooperation according to the motto of diversifying and multilateralizing partners and forms of foreign economic relations. Up to now, Vietnam has expanded diplomatic relations, trade, investment, etc. with 191/193 United Nations member countries (Son, 2023); Market economic institutions are forming and gradually improving; Physical and social infrastructure are gradually improved; People's lives are increasingly improving. Especially up to now, Vietnam is leading the group of countries with the same income level (Uyen, 2021). These achievements show that Vietnam's efforts to improve next year are better than the previous year. However, besides the achievements, "Vietnam's economic development is not sustainable, not commensurate with the potential, requirements and actual resources mobilized. In the last 10 years, the macroeconomy has been unstable at times, economic growth has declined and recovery has been slow. The quality, efficiency, social labor productivity and competitiveness of the economy are still low. The development is unsustainable in terms of economics, culture, society and environment" (Cap, 2019). Besides, political reform in Vietnam is still not synchronized with economic reform; The capacity and performance of the political system are not up to the task; The completion of economic institutions is slow, the legal system and policy mechanisms are not complete and synchronous, and do not meet the requirements of innovating the growth model; The effectiveness and efficiency of state management is not high, the state still intervenes directly and too heavily in the economy, there is still a situation of subsidies, asking and giving; International integration has not combined and promoted well external resources with domestic resources for development.

The international context facing the need to develop a knowledge economy

The fourth industrial revolution has proven that any country that takes advantage of the positive aspects well will have a breakthrough and amazing change in growth rate and economic

development; Shifting the economic structure in a more optimal direction, human civilization in general and the country in particular to a new civilization - intellectual civilization. The knowledge economy was formed, leading to changes in generations of mobile phones, information technology, computers, high-tech products, and at the same time, traditional industries such as mechanical engineering, ferrous metallurgy, shipbuilding, etc. gradually lost their role. This raises the problem that if any country does not change its thinking to be aware of international cooperation, and does not grasp and make good use of the achievements of this revolution to bring the country forward, it will be very difficult to develop and overcome the middle income trap. "The world situation is following the trend of multi-polarity and multi-center happening faster. Big countries adjust their strategies, both cooperate and compromise, compete, fight, and restrain each other, strongly affecting the world and regional situation. Manifestations of extremism, imposed powerism, and pragmatism are increasingly emerging in international relations. Multilateral institutions are facing major challenges. Developing countries, especially small and medium-sized countries, are facing great opportunities and difficulties and challenges on the path of development" (Le Hai Binh, 2021).

In that context, the gathering of forces, connections, competition, and struggles between countries in the world and the region for the benefit of each country continue to become complicated. "The world political and security situation is changing rapidly, becoming complex and unpredictable; Violations of national sovereignty, territorial and resource disputes, ethnic and religious conflicts, subversive interventions, terrorism, cyber wars, and local wars continue to take place fiercely in many region" (Loi, 2022). Global issues can be generalized into four main groups of issues: i) Group of issues related to development resources (human resources, material resources, financial resources, position, national position in the region and internationally); ii) Group of issues related to the ecological environment, including global climate change; iii) Group of issues related to economic growth and development of the world, countries, businesses, such as foreign debt, inflation, unemployment,... iv) Group of global issues related to politics, society,.. like war and peace; issues of religious expansion, racial and ethnic conflicts; diseases for humans and livestock, etc. Climate change globally and in each country in particular in recent years has caused huge losses to each country. This is forcing countries to have new thinking in the game of integration to work together to prevent, reduce and solve global problems, including climate change. Fluctuations in world prices, financial and currency instability and public debt problems continue to cause adverse effects on the world economy.

The economic power relationship between countries and regions is changing. Most countries in the world have adjusted their strategies, restructured their economies, innovated economic institutions, and applied science and technology for development. Economic and trade competition, competition for resources, markets, technology, and high-quality human resources among countries is increasingly fierce. Many new forms of economic linkages, international and regional financial institutions, and new generation bilateral and multilateral economic agreements have appeared. The Asia-Pacific region alone, including Vietnam, continues to be a dynamic development center, with an increasingly important strategic geo-economic and political position in the world. At the same time, this is also an area of strategic competition between a number of large countries, with many unstable factors. Territorial disputes and sovereignty over seas and islands in the region and in the East Sea continue to be fierce and complex, and will continue to play an important role in maintaining peace, stability, promoting cooperation and economic linkages in the region, but also faces many difficulties and challenges both internally and externally.

Challenges facing Vietnam in developing the knowledge economy

Developing the knowledge economy in Vietnam during the fourth industrial revolution is an important task to continue enhancing its potential, role and position in the international arena. However, from development practice, the knowledge economy in the context of the fourth industrial revolution also poses many challenges, such as: i) In the context of the scientific and technological revolution, especially the strong development of the fourth industrial revolution, the means of production will shift to intangible resources - artificial intelligence, advanced and modern technology, digital technology, Internet of Things, information, big data, patents, inventions,... This is a new problem for developing economies, including Vietnam; ii) Investment resources for the knowledge economy and science and technology have improved but still do not meet actual requirements; iii) In the process of developing the knowledge economy, digital technology gives rise to new economic sectors and new business forms that, if not managed, will cause social instability or loss of tax revenue; iv) The knowledge economy puts great pressure on workers, requiring them to constantly learn, explore creativity, change careers, transfer technology, etc. Due to focusing more on mental work, it can affect health; v) Policies to attract talent to develop the knowledge economy are still not attractive enough.

Some current solutions to develop the knowledge economy in Vietnam

With the goal of soon turning Vietnam into a modern industrial country, developing a knowledge economy has become one of the important tasks, a decisive factor in the country's development in the current context. Therefore, some basic solutions to develop a knowledge economy in Vietnam are:

Firstly, continue to improve institutions and legal systems for the knowledge economy: In any country, the state always plays a leading role in developing the knowledge economy. The state must devise mechanisms and policies that are appropriate to the practical situation to promote the knowledge economy development. In the current period, Vietnam needs to focus on perfecting institutions, policies and laws in accordance with market mechanisms and international practices to develop the knowledge economy; Support necessary conditions to develop science and technology, promote research and deployment activities; Encourage the development of new business models, digital economy, and digital society. There are economic and financial mechanisms and policies to encourage and create a favorable environment for businesses to participate in research, development and technological innovation, and apply knowledge achievements to create high productivity. Allow the implementation of new policy testing mechanism, promote the deployment and application of new technology, innovation, and new business models.

Clearly define targets and action programs to apply and develop science, technology and innovation in socio-economic fields. Administrative reform, creating a healthy business environment, and liberating all creative abilities are the key and breakthrough steps to awaken the strength of great unity of the entire people to enter the knowledge economy and develop a prosperous country. To do this, it is necessary to build, adjust, amend and promptly supplement a system of legal documents and policies expressing views that facilitate the application of science and technology to economic sectors. Improve the effectiveness and efficiency of management of the state administrative apparatus at all levels; clearly define the functions, powers and legal responsibilities of the Party's organizational apparatus, agencies of the legislative, executive and judicial systems as well as other parts of the political system to develop the knowledge economy. Emphasize issues of intellectual property, technology transfer, and copyright; Avoid conflicts and overlaps between legal documents and

implementation guidance documents. Develop appropriate tax policies to encourage investment and promote economic development. Besides, there needs to be mechanisms, policies, and incentives for intellectuals, including young intellectuals because they are creative, quick to grasp technological trends and scientific progress of the times.

Develop policies to develop and utilize talents. Develop policies for intellectuals working abroad so that they have conditions to contribute their talents and intelligence to the development of the country. Develop the startup ecosystem and encourage the entrepreneurial spirit by establishing organizations and support centers, creating the best conditions for young startups; Pay attention to developing technology corporations to become the backbone of the national economy. The government needs to have regional development policies, minimize imbalances between regions, and encourage localities to create their own competitive advantages by innovating and creating based on the unique advantages of each place for socio-economic development; Promote the application of knowledge, science and technology in rural areas, create synchronous social development between rural areas and cities, and gradually limit the too high concentration level in big cities, causing create serious urban problems.

Secondly, develop and improve the quality of human resources to meet practical requirements: In the era of the Fourth Industrial Revolution that is taking place strongly today, develop a team of leading experts and scientists; Focus on technical human resources, digital human resources, technology management human resources, management human resources, and corporate governance; Human resources for social management and life organization, taking care of people is an important task. To have high-quality human resources to meet current requirements, we must create fundamental and strong changes in the quality and effectiveness of education and training. Education contributes to creating knowledge, developing knowledge, and promoting knowledge. Using knowledge is the process of innovation, turning knowledge into value, and bringing knowledge into human social activities. Therefore, education is a basic sector in the knowledge economy. To develop education comprehensively, it is necessary to focus on training and fostering staff and teachers to meet practical requirements.

Promote educational methods from equipping knowledge to comprehensively developing capacity and qualities, promoting the positivity, initiative, and creativity of learners. Teaching content must be updated regularly, providing learners with new scientific knowledge, suitable to social and international needs. Encourage civil servants, public employees, armed forces, managers, production and business officers, engineers, and high-level workers in key economic sectors to cultivate their knowledge, skills, and improve their skills. Professional qualifications and skills not only meet job requirements but also orient sustainable development of future fields, arousing the desire to develop a prosperous and happy country. To improve the quality of human resources, it is necessary to develop a network connecting Vietnamese talents, attract contributions from the community of Vietnamese scientists abroad, and combine internal resources to keep up with the trend of advanced science and technology development, serving the goal of modernizing the country's production force.

Thirdly, focus on investing in infrastructure and information technology: Focus on synchronously implementing investment attraction policies and financial policies to encourage the development of industries with high added value, use less resources and energy, minimize environmental pollution; build infrastructure - advanced and modern technology; pay attention to investment spending on science and technology, promote innovation and synchronous development of the digital economy, aiming to build high-quality infrastructure to serve

people's lives such as: smart cities, online services,... Developing telecommunications and information technology infrastructure is identified as one of the shortest paths and a lever to awaken all potential and internal resources in the country.

Therefore, it is necessary to develop and upgrade information technology infrastructure, telecommunications and internet networks, and improve network connectivity readiness. Continue to develop and perfect telecommunications and information technology infrastructure in a broad, multimedia direction to promote and lay the foundation for the development of e-commerce, e-government, e-education, and e-healthcare. Ensure that the domestic information network system reaches an advanced level in the region, connecting all parts of the country with high speed, large capacity, and low rates. All schools, grades, and educational levels promote the application of information technology and scientific knowledge in education and training. It is necessary to pay attention and focus on investing in facilities and equipment for education to strive for all students from primary school and above in all regions to have access to and use computers and the internet to serve learning; develop training and fostering programs and activities to develop soft skills, contributing to improving the quality of teaching and learning; Promote the positivity and initiative of students, college and university students in self-study and scientific research.

Build information and documentation centers, especially electronic libraries connecting domestic and foreign universities, national laboratories, and key universities, promote international cooperation in educate, improve the ability to use foreign languages and exchange knowledge for pupils and students. Actively and proactively cooperate internationally to take advantage of external resources, choose strategic partners who are countries with advanced science and technology to invest in Vietnam, thereby closely linking science and technology with international economic cooperation. Encourage the construction of research and development centers and industrial development; Build high-tech zones, with the core being technology incubators and modern business incubators with quality labor and high productivity to replace old, inefficient industrial zones.

Fourthly, promote the application of knowledge achievements in all socio-economic fields: In the current digital technology era, businesses consider the ability to apply scientific and technical achievements and technology is a decisive factor in competitiveness. Information technology, artificial intelligence, and e-commerce are the keys and basic measures to innovate management, expand markets and improve competitiveness, create added value, and contribute greatly in the country's economic development. Applying high technology in the production organization of a number of industries has a pervasive impact, leading the transformation of industrial structure, improving competitiveness and participating in the global industrial value chain. Accelerate digital transformation for a number of industries and fields with favorable conditions, especially small and medium-sized enterprises, apply and develop new technology, prioritize digital technology, artificial intelligence, and internet connection things, cyber security, clean energy, environmental technology, etc. to transform and improve the productivity and efficiency of the economy. Developing and deploying appropriate support solutions to popularize digital information to households has great significance for the country's development towards a knowledge economy.

Bring knowledge and information to the grassroots, apply information technology to narrow the geographical gap and knowledge gap for people in remote and disadvantaged areas. Bringing information to those regions not only helps them improve production methods but also raises people's knowledge, eliminates outdated ideas and concepts, and contributes to the

current process of building new rural areas. That is an absolutely necessary initial condition for hunger eradication, poverty reduction, and socio-economic development to industrialize and modernize agriculture and rural areas.

Conclusion

In the new international context, globalization is rapidly increasing, science and technology are developing rapidly, and developing a knowledge economy has become an inevitable requirement for the Vietnamese economy. To develop a progressive knowledge economy that adapts to the fourth industrial revolution, Vietnam needs to clearly identify its potential in the face of opportunities and challenges. Based on internal and external conditions, Vietnam needs to map out a specific and clear direction to develop the economy, contributing to helping Vietnam catch up with the development of countries in the region and the world.

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