

IMPACTS OF DIGITAL ECONOMY ON INDUSTRIALIZATION AND MODERNIZATION IN VIETNAM

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Abstract: *In the context of the strong development of the Fourth Industrial Revolution, the digital economy plays an increasingly important role in the economic structure of each country. Vietnam is no exception to that trend. Resolution No. 52-NQ/TW, dated September 27, 2019, of the Politburo, on a number of guidelines and policies to actively participate in the Fourth Industrial Revolution, setting goals by 2025, the digital economy accounts for 20% of GDP. The 13th Party Congress proposed the policy: “Continue to promote industrialization and modernization on the basis of scientific, technological and innovation progress”.*

Keywords: *Digital economy; Industrialization; Modernization; Vietnam.*

I. Introduction

World experts have generalized four levels of industrialization from low to high. The lowest level is the assembly level (Assemblément). Next is the level of production with its own technology (Own Engineering Manufacturing-OEM). Higher is the level of production with its own design (Own Design Manufacturing - ODM). The highest level is production with its own brand (Own Brand Manufacturing - OBM).

In order to progress to a higher level of industrialization, each country must have some basic industrial production, without which it is impossible to develop other industries. Metallurgy, mechanical

engineering, manufacturing, energy, chemicals... are the foundations for other industries with conditions and premises for construction and development. In fact, many countries have not given strategic attention to these industries. The direct consequence is that the national industrial production basically stops at the assembly level and the supporting industries cannot develop, the national industry is increasingly inferior to the industrial bases of the FDI sector. Faced with this situation, the document of the XIII Congress determined: “*Building a strong national industry... focusing on developing fundamental industries, especially mechanical engineering, manufacturing, and supporting industries*” .

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In today's world, the industrialization process of each country cannot be carried out in isolation, but must be placed in the global production and business chain. The process of industrialization and modernization in our country is also the process of restructuring the economy according to competitive advantages; ensuring national economic autonomy through technological innovation, improving labor productivity and production and business efficiency. In order to guide this important transition, the document of the XIII Congress clearly states: *“Restructure industry, improve technology level, accelerate transformation to digital technology..., improve autonomy. owner of the economy, capable of deeply and effectively participating in global value chains”*.

Considering the scale of global trade, today's world has been transformed by free trade agreements, especially new generation agreements, into a unified and integrated market. There, there has been and will quickly lose the distinction between the domestic market and the international market. In such a new context, the pre-existing models of industrialization are clearly out of place. Vietnam, like other countries, urgently needs to define a new model of industrialization, both adapted to the global value chain, the fourth industrial revolution... and in line with the conditions, goals, and objectives. requirements... of the home country. The 10-year socio-economic development strategy (2021 - 2030) approved at the XIII Congress clearly states the model of industrialization and modernization in the new period: *“Continue to promote*

industrialization and modernization. modernization on the basis of science, technology, innovation and technological achievements of the Fourth Industrial Revolution... Promote the development of a number of key economic sectors and fields with potential capabilities, advantages and great room for growth as a driving force for growth in the spirit of catching up, advancing with and surpassing in some areas compared to the region and the world”.

Some key industries, new technologies and high technologies identified as development priorities include: Information and communication technology, electronics - telecommunications industry, robot manufacturing industry, automobile, integrated equipment with automatic operation, remote control, software manufacturing industry, digital products, information security industry, pharmaceutical industry, biological product manufacturing, industrial environmental industry, clean energy industry, renewable energy, smart energy, processing industry, manufacturing for agriculture and new materials....

II. Theoretical Background

2.1. Digital economy

“Digital economy” is inherently a difficult concept to define and measure specifically. The digital economy includes all businesses and services whose business models are primarily based on buying, selling or providing digital products and services or supporting devices and infrastructure. Compared with the traditional economy, the digital economy has the following new characteristics:

Data is a valuable resource in the digital economy: The development of digital technologies allows the collection of data from a wide variety of sources, from smartphones to millions of sensors, variable in factories, vehicles, and even in individuals. These big data streams, coupled with big data analytics capabilities, can create value in all personal and community activities.

- Advancement of ICT hardware and software: The digital economy is the result of the development of new digital technologies (robot technology, Internet of things, digital platforms)
- which have a transformative impact beyond the ICT sector. Transformation is happening across all sectors, from finance to transportation, manufacturing, media, education, healthcare.

New business models are a double-edged sword for businesses: Digital-based business models allow groups of people to interact with each other, thereby creating positive effects for the entire network. and improve work efficiency by reducing transaction costs. For example, e-commerce facilitates the ordering of goods and services to be shipped through traditional channels or entirely online. Online advertising is also an emerging field, through which the Internet becomes a tool to ensure accurate delivery of messages to each segment of customers. Meanwhile, the sharing economy offers many job opportunities for many individuals as well as access to idle assets and services.

- The new role of the consumer: Digital technology puts the consumer at

the center. The ability to communicate and share opinions and reviews with others not only changes the shopping experience of customers but also greatly affects the reputation of the business. The Internet makes consumers more powerful because they can freely express and share opinions. Consumers are also the source of new and very important creative inspiration for manufacturers.

2.2. Industrialization and modernization

During the past four decades, Vietnam has undergone industrialization, modernization and international integration. For Vietnam today, science, technology and innovation play an important role in development: improving production capacity and competitiveness in product value chains, revolutionizing business models and attracting more investment sources in the field of information and communication technology.

The Fourth Industrial Revolution is characterized by technological consolidation; The ability to connect via mobile devices and access to large databases, information processing capabilities will be multiplied by technological breakthroughs in many fields. Compared with previous industrial revolutions, the Fourth Industrial Revolution develops at an exponential rather than an additive speed, transforming entire systems of production, management and governance. The fourth industrial revolution is built on the foundation of the digital revolution with advanced technologies that increasingly help bridge

the gap between the real world and the cyber world.

The trend of digitizing the economy and social activities is the foundation that allows the Fourth Industrial Revolution to explode, which is taking place deeply in many developed countries and taking place at a fast pace in developing countries. Today, half of the world's population is connected online, a third is on social media, 53% is via mobile, and covers all ages, races, geographies and backgrounds across the globe. planet.

It can be said that digital development has been changing economies around the globe at breakneck speed. In 2016, the global digital economy was worth \$11.5 trillion, accounting for about 15.5% of the world's GDP; over the next decade is expected to increase to 25% of world GDP.

The widespread application of digital technologies will help businesses optimize processes, reduce transaction costs, transform supply chains, improve labor productivity and develop new industries. The biggest benefit to consumers is that they can connect and access products and services according to their needs, at competitive prices. Governments can also take advantage of e-government, as it provides more effective alternatives to traditional governance, and offers new solutions to national problems such as the diffusion of health services, urban management and climate change. However, to materialize these benefits on a large scale, economies need to work to analyze and remove barriers to successful digital transformation.

III. Research Methods

- Synthetic analysis method: evaluate the development of the digital economy in Vietnam through existing documents.

- Statistical method: synthesizing data related to the process of industrialization, modernization and development of the digital economy in Vietnam..

IV. Result and Discussion

4.1. These achievements

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The fourth industrial revolution has a strong impact on Vietnam, creating new opportunities for Vietnam to integrate more deeply and effectively into the world economy, directly entering new industrial fields, taking advantage of advanced scientific and technological achievements to accelerate the process of industrialization and modernization of the country and narrow the development gap. Recently, the digital economy has had a strong development. According to a research report by Google and Temasek (Singapore), Vietnam's digital economy reached about 3 billion USD in 2015, increased to 9 billion USD in 2018 and is forecasted to reach 30 billion USD in 2025. According to another study by Data61 Organization (Australia), Vietnam's GDP

could increase by about \$162 billion in 20 years if Vietnam is successful in digital transformation.

The exciting development of the digital economy in Vietnam promises to bring opportunities for many small, medium and micro enterprises. E-commerce platforms can bring small, medium and micro enterprises to large markets both at home and abroad. When participating in the labor market in the digital economy, workers must innovate to adapt as their skills, knowledge and previous traditional business methods are also transferred to the digital environment. This will bring more opportunities for businesses and employees.

4.2. Orientation to develop digital economy for industrialization and modernization

The Government of Vietnam recognizes the widespread digital transformation across the economy as crucial to growth and prosperity. At this time, there are many agencies that simultaneously support and regulate different parts of the digital economy in Vietnam.

The digital economy and e-commerce in Vietnam are experiencing strong growth with an average rate of 25% - 30% per year in recent years. The rapid development of the digital economy, e-commerce and the rapid expansion of cyberspace also put Vietnam in front of difficulties and challenges in development. Currently, the system of institutions, policies as well as enforcement, dispute settlement and enforcement agencies related to digital economy development is

still weak, inconsistent and effective, so it has not been exploited yet. exploit the full potential to develop the digital economy. The habit of transaction, payment using cash, and payment on receipt of goods of the majority of consumers is a big obstacle, increasing costs for the whole society, businesses and people. People's awareness of the digital economy is still limited, skills to use the internet safely are low, and it hasn't kept up with the speed of technology development.

Enterprises need to integrate digital technology, promote the development of production and business solutions based on digitization; optimize business models, develop new skills for individuals and organizations, effectively use intelligent supply chains; have solutions to manage intellectual property in the digital age in line with new business models and cooperation models. Develop human resources in the direction of enhancing accessibility, creative thinking and adaptability to the constantly changing and evolving technological environment.

- Industrialization and modernization associated with urbanization have gradually changed in terms of social issues. Along with labor restructuring is a change in population structure. Urban residents increase, the labor force and residents in industrial parks, economic zones and economic zones are constantly increasing.

- Industrialization and modernization of the country is associated with the formulation and implementation of the education and training development strategy, the science and technology

development strategy, and the Vietnamese culture and people development strategy. in the new era.

- Industrialization and modernization is to accelerate economic development and is associated with strengthening defense and security strength. Strong economy, developed industry and a high level of science and technology are important bases for strengthening national defense and security.

V. Conclusion

The digital economy is developing strongly on a global scale, which is both a challenge but also a good opportunity for Vietnam to take advantage of in the country's economic development. From the perspective of state management, it is necessary to develop and adjust policies to support the development of the digital economy, because this is the most important factor for the development of the digital economy in Vietnam. By establishing a transparent, clear and favorable institutional environment, the Government can effectively promote and ensure that the development of the digital economy achieves the goals set out in Resolution No. 52-NQ/TW proposed by the Politburo.

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