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### Resources for the Digital Economy: Issues of Current Concern in Vietnam

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#### Abstract

In the current context, the industrial revolution 4.0 is constantly being applied - the digital economy is born, gradually replacing the traditional economy. Therefore, in order to successfully transform Vietnam's economy to a digital economy, it is necessary to have digital human resources. In addition to the transformation of the economy to a digital economy in Vietnam is the process of restructuring the labor force in the economy, whereby the increasingly developed digital human resources take a leading role in the total number of employees. social labor force. Therefore, the development of digital human resources is indispensable in the process of labor restructuring in Vietnam today. The article analyzes and clarifies theoretical and practical issues related to resources for the digital economy in Vietnam today. The results show that the challenge of resources for the development of the

digital economy in Vietnam today is reflected in the fact that the majority of Vietnamese workers are unskilled and untrained workers, leading to great risks. on the redundancy of labor, posing the problem of retraining redundant workers; the level of human resources is still low, not meeting the requirements of economic reform in general and digital transformation in particular; The labor structure is not reasonable, both in terms of qualifications and distribution by region. In addition, the article also outlines the problems posed for information and communication technology human resources in the current trend of digital economy development in Vietnam. development of information and communication technology human resources. The limitation of this article is that it has not analyzed the factors affecting the development of digital human resources.

**Keywords:** Resources, Economy, Digital Economy, Vietnam

#### Introduction

Digital economy, digital transformation is an inevitable trend of Vietnam and many countries around the world in the current context, but in order to develop a digital economy, Vietnam must overcome a number of challenges, including: human resource challenges. The development of the digital economy requires correspondingly developed human resources, digital human resources to deploy, organize, implement and operate the economy effectively. The development of the digital economy will lead to drastic changes in labor, the digital transformation process will both lose jobs but also create new jobs. The digital economy will make a big change in the labor structure and the labor market. The development of science and technology will cause labor market instability, increasing the fear of job loss due to automation, Vietnam and other countries in the region may lose their comparative advantage based on cost, low labor cost. The digital economy offers great development opportunities, but workers need to be prepared with the right skills and competencies for future job demands. How the workforce responds and adapts to digital transformation is not an easy answer. Therefore, understanding issues related to resources for the digital economy in the current context in Vietnam is still an urgent issue.

#### Methods and data used for the study (Methodologies and Data)

The article uses logical and historical methods, analysis and synthesis. The article also uses materials of previous researchers and documents related to resources for the digital economy in Vietnam today.

#### Research question

*Question 1:* The challenge of resources for the development of the digital economy in Vietnam today is reflected in what basic contents?

*Question 2:* What is the problem for information and communication technology human resources in the current trend of digital economy development in Vietnam?

**Question 3:** What are the solutions to develop information and communication technology human resources in the current trend of digital economy development in Vietnam?

### Research purposes

The purpose of the article is to analyze and clarify theoretical and practical issues related to resources for the digital economy in Vietnam today.

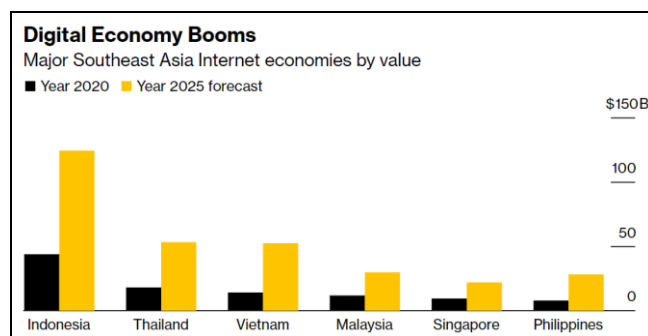
### Research results and discussion

#### *Challenges of resources for the development of the digital economy in Vietnam today*

**Firstly**, because the majority of Vietnamese workers are unskilled workers, untrained workers, leading to a great risk of labor redundancy, posing the problem of retraining for redundant workers. According to a study published by the ILO recently over the next two decades, about 56% of workers in five Southeast Asian countries, including Vietnam, are at risk of losing their jobs because of robots, especially in the Apparel industry. Or in the report of the Asian Development Bank (ADB, 2021), the development of the digital economy will cause the loss of a large number of jobs, for example, replacing up to a third of the processing workforce, agricultural products, replacing 26% of the workforce in the logistics industry in Vietnam. Workers will lose their jobs if they lack the necessary skills to switch to new jobs without adequate and timely investment in skills development. At that time, Vietnam may be under considerable pressure on job creation and face an increase in unemployment or underemployment in the future.

**Secondly**, the level of human resources is still low, not meeting the requirements of economic reform in general and digital transformation in particular. The low quality of human resources leads to labor productivity in domestic industries, although improved, still much lower than in other countries in the region. Abundant, cheap labor will no longer be a factor creating competitive advantages and attracting foreign investment. The Asian Productivity Organization's report in 2021 shows that Vietnam's labor productivity is 26 times lower than that of Singapore, Malaysia 7 times and Thailand 3 times. From 2020 to 2022, Vietnam's labor market is heavily affected by the Covid-19 epidemic. By the second quarter of 2022, there are still more than 8 million people aged 15 and over who are still negatively affected by this pandemic. Of which, 0.4 million people lost their jobs; 0.5 million people can't find work; 2.2 million people had to temporarily suspend production and business activities; 2.4 million people have their working hours cut or forced to take time off, rotating leave and 6.5 million workers have their income reduced. The International Labor Organization (ILO) assesses that the recovery of the global labor market is threatened by ongoing crises. According to Dr. Vu Thi Loan, although Vietnam's labor market tends to recover and develop, there are still some limitations. Specifically, the quality and structure of human resources have not met the market requirements. The proportion of workers with degrees and certificates accounts for only 26.2% of the labor force, of which the proportion of people aged 15 years and older with primary or higher technical expertise in urban areas is approximately 39. %, the rural area is close to 20%. The rate of trained workers

with degrees and certificates nationwide is 24.1%. This shows that the professional qualifications, skills and skills of Vietnamese workers cannot meet the requirements of enterprises and the labor market in the context of the current development of the digital economy in Vietnam.



**Source:** Bloomberg based on 2020 report by Google, Temsak and brain & Co.

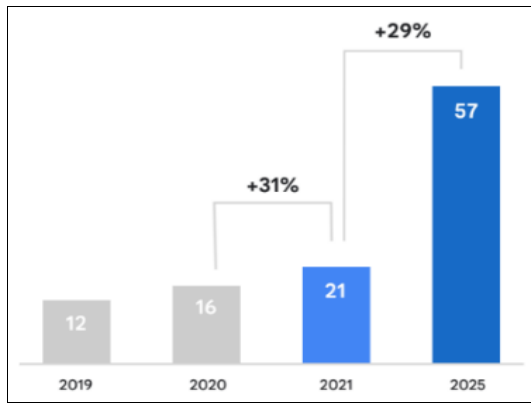
**Fig 1:** Internet digital Economy forecast

**Third**, the labor structure is not reasonable, both in terms of qualifications and distribution by region.

In terms of structure, there is an irrationality in the qualification structure of our country's labor force: workers with undergraduate and postgraduate training accounted for the largest proportion and rapidly increased. The increase in the proportion of trained workers over the past time is largely due to the increase in workers with university degrees or higher. In 2020, workers with college and university degrees or higher will account for more than half of high-quality workers (62.08%) and only 46.25% with university and higher degrees, while intermediate vocational qualifications are only reached 18.33% (Table 2). This leads to a phenomenon that our country has a serious shortage of professional and technical workers with college and intermediate degrees, but there is still a large surplus of highly qualified workers (from university and above). This reflects the unreasonable level, causing great waste and inefficiency of the situation of "excess teachers, shortage of workers" and the imbalance in the structure of trained labor currently.

#### **What is the problem for ICT human resources in the current trend of digital economy development in Vietnam?**

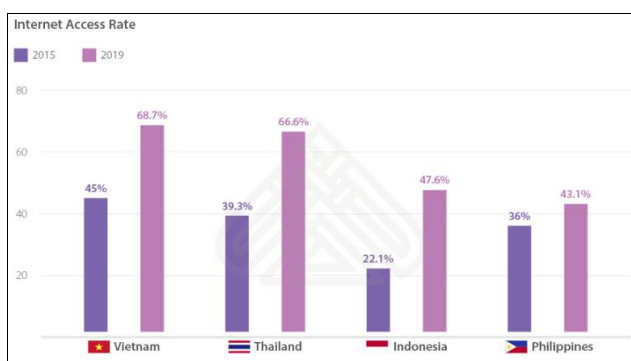
As a developing country, Vietnam, the development of information and communication technology (ICT) human resources is indispensable in the process of labor restructuring in Vietnam today to develop the digital economy. Accompanying that are the problems posed with ICT human resources. Each economy requires a correspondingly qualified production force, especially human resources. Therefore, corresponding to the digital economy, there must be digital human resources to deploy, organize and operate it. Moreover, in any period of social development, people are always the central factor and with the characteristics of the digital economy, ICT human resources play a decisive role in the successful and sustainable development. of this economy.



Source: Google, Temsak and brain & Co.

Fig 2: The CAGR of digital economy of Vietnam in Billion USD

ICT human resources is the sum total of quantity and quality of human beings with a combination of intellectual and physical criteria and moral and spiritual qualities that create the capacity that humans themselves and the digital economy are currently developing. and will need to mobilize into the process of labor, creativity. This human resource needs to be well-trained, professional, ethical, capable of mastering technology, being creative and able to quickly adapt to changes in technology in the economy. The requirements of ICT human resources are expressed in such aspects as: Having the ability to master digital technology devices in the interactive process of economic activities; being able to adapt in the fastest time to the working environment with new scientific and technological advances; have a disciplined and ethical manner at work and have the ability to think outside the box at work, also known as creativity. And in order to successfully transform Vietnam's economy to a digital economy, it is necessary to have ICT human resources that meet the above requirements. Therefore, parallel with the transformation of the economy to the digital economy of Vietnam is the process of restructuring the labor force in the economy, whereby, ICT human resources increasingly occupy a leading role in the total economy. social labor force. Therefore, the development of ICT human resources is indispensable in the process of labor restructuring in Vietnam today.



Source: World Bank

Fig 3: Internet Access Rate

The jobs that can be done immediately to develop ICT human resources in the current context are:

- The Government should assign relevant agencies to develop specific training programs and strategies. If training is not enough, "import" from abroad must be taken into account.

- Enterprises must closely coordinate with universities and vocational colleges and support resources, share experiences in the training process, guide and research lecturers, change training programs to suit the needs of customers. reality. As for the schools, they also have to change their curricula, training content, teaching and learning methods, and improve the qualifications of teachers to meet the needs of the market.
- The Government should have policies to encourage training institutions to promote digital training and build digital universities.
- Focusing on training skills in information and communication technology application for officials and civil servants and professional skills for officials and civil servants in charge of information technology and communication of departments, agencies, branches and cities. city streets, districts - districts, wards - communes - townships. Training contents include: Training, fostering and developing information security human resources; training, fostering and developing human resources for digital transformation; training, fostering and developing communication human resources in state management; training, fostering and developing information technology human resources; training and fostering information technology leaders and information security leaders.

In addition, it is necessary to build and soon complete digital infrastructure and services, including hard infrastructure and telecommunications networks as the foundation to create soft infrastructure as digital services to help optimize the operation of the platform. economy; further speed up the construction of a national database system and open knowledge. Besides, focus on raising awareness of the whole society about the digital economy. The system of press and media agencies needs regular and complete information about the digital economy to businesses, people and the whole society, thereby forming a proactive attitude to adapt to the economic development trend number.

**Conclusion**

In the current process of innovation and international integration, Vietnam is promoting the development of the digital economy, considering this a breakthrough in the context of the Fourth Industrial Revolution. It is also a high priority task in Vietnam's national development strategies. Over the past time, the Government of Vietnam has had many mechanisms and policies to encourage the development of the digital economy. The government also set a target that by 2025 the digital economy will account for 25% of Vietnam's GDP. In addition, the proportion of the digital economy in each industry or field is at least 10%. Most recently, the Prime Minister of Vietnam also approved the national strategy on digital economy and digital society to 2025 and orientation to 2030. The right guidelines and decisions along with the response of all levels industries, including businesses in the telecommunications - information technology (IT) field, Vietnam has become one of the countries with the fastest growing digital economy in Southeast Asia. In the "e-Conomy SEA 2021" report jointly published by Google Group, Bain (USA) and Temasek (Singapore), Vietnam's internet economy in 2021 will reach a value of 21 billion USD, contributing more than 5% of GDP. of the country, 7 times higher than in 2015, and is expected to reach 57 billion USD in 2025, ranking second in

Southeast Asia (growth rate of about 29% a year). However, the process of national digital transformation still has many difficulties and challenges. In particular, the core is still human resources, especially the shortage of highly qualified human resources for digital transformation, including IT human resources. The article analyzes and clarifies theoretical and practical issues related to resources for the digital economy in Vietnam today. The results show that the challenge of resources for the development of the digital economy in Vietnam today is reflected in: the majority of Vietnamese workers are unskilled workers, untrained workers, leading to great risks. on the redundancy of labor, posing the problem of retraining redundant workers; the level of human resources is still low, not meeting the requirements of economic reform in general and digital transformation in particular; The labor structure is not reasonable, both in terms of qualifications and distribution by region. In addition, the article also points out the problems posed for information and communication technology human resources in the current trend of digital economy development in Vietnam. development of information and communication technology human resources.

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