

**ROLES OF EDUCATION AND TRAINING IN KNOWLEDGE ECONOMY
DEVELOPMENT IN Vietnam NOWADAYS**

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ABSTRACT

The role of education and training in the development of the knowledge economy in Vietnam is a big, complex issue as Vietnam's development of the knowledge economy has just begun in the last two decades. One of the decisive issues is the perception of the right place, the role of education and training in comprehensive human development in Vietnam, and the improvement of quality. human resources of knowledge economy developers. With the above approach, the author analyzes and clarifies the nature of education and training role in developing the knowledge economy in Vietnam, thus proposing solutions to promote the role of education and training. Created in the development of knowledge economy in Vietnam today.

Key Words: Education and training, knowledge economy, knowledge economy development, Vietnam

1.INTRODUCTION

In the 21st century, humanity witnessed the rapid development of the modern scientific and technological revolution. In the new context, scientific and technological knowledge truly becomes a direct production force, knowledge-based economy emerges and becomes an indispensable development trend of mankind. It is the development of the knowledge economy in Vietnam that is objective and the opportunity for Vietnam to successfully implement the "shorten" development strategy and soon become a modern industrial country. , for the purpose of prosperous people, strong country, democracy, justice and civilization. For this process to be carried out smoothly, with good quality and efficiency, the role of education and training is very important and of decisive importance.

Knowledge economy and knowledge economy development in Vietnam

1.1 Knowledge economy

The term "knowledge economy" came into being in the early 1990s of the twentieth century and has recently been widely used in the world as well as in Vietnam. The introduction of knowledge economy reflects the objective development trend of production forces in new conditions. Accordingly, the world economy is gradually moving from the industrial economy to the knowledge economy; factors such as knowledge, science and technology become the most important part of modern manufacturing.

In 1995, the Organization for Economic Co-operation and Development (OECD) conceived: "Knowledge economy is an economy in which the production, diffusion and use of human knowledge play the most decisive role. economic development to create wealth, improve quality of life "¹

"Knowledge economy is the economy in which the process of producing, distributing and using knowledge becomes the main driving force for growth, for the generation of wealth and employment in all economic sectors "²(APEC 2000)

The knowledge economy is the economy in which the production, diffusion and use of knowledge play the most decisive role for economic development, job creation and wealth creation. life "³

Based on the above ideas, the author argues that the knowledge economy is a new step, a new step in the process of world economic development in which the growth engine is the use of knowledge. , propagate and produce new knowledge; is used in all sectors and the value created by knowledge accounts for most of the total value of the product.

The development of each nation-state at present is governed by the fundamental causes of the ability to create, disseminate and apply scientific knowledge to the production process.

Firstly, in the knowledge economy, knowledge has surpassed traditional production factors: labor, resources, capital to become important factors contributing to economic and social development. of each nation - nation. Knowledge economy has a richer labor audience, containing "high scientific knowledge content". The advancement of science and technology has provided human beings with a richer source of material, fuel, and materials than science has found in things that have many new properties and features. The object of labor in the knowledge economy is rich and contains more scientific knowledge.

In addition to the new, finer and smarter labor literature, the knowledge economy has more productive (material, productive) material. Then all kinds of machines are transformed in quality, part of the human intellect is assigned to machines take, making the speed of thinking soared leading to the introduction of intelligent machines. With the rapid changes of the machine tools, equipment, knowledge economy require workers to have knowledge to develop and occupy an important position in the production process, human labor capacity There must be a qualitative change. In addition to the new, finer and smarter labor literature, the knowledge economy has more productive (material, productive) material. Then all kinds of machines are transformed in quality, part of the human intellect is assigned to machines take, making the speed of thinking

¹ Ngo Quy Tung (2001), Knowledge Economy - New Trend of 21st Century Society, Hanoi National University Publishing House, p.116

² Ngo Quy Tung (2001), Knowledge Economy - New Trend of 21st Century Society, Hanoi National University Publishing House, p.115

³ Ngo Quy Tung (2001), Knowledge Economy - New Trend of 21st Century Society, Hanoi National University Publishing House, p.115

soared leading to the introduction of intelligent machines. With the rapid changes of the machine tools, equipment, knowledge economy require workers to have knowledge to develop and occupy an important position in the production process, human labor capacity There must be a qualitative change.

Secondly, the ability to create, distribute, exploit knowledge and knowledge of science and technology becomes the decisive factor for the competitive strength of each nation and every enterprise in the international market.

Economic globalization is the process of expanding the division of labor and the specialization of production, through which markets and production in different countries are increasingly interdependent. Workers enjoy better labor and income. Wealth, knowledge can also be private, may be the same, but who hold more knowledge, the higher the opportunity for income. Thus, in the knowledge economy there is a difference in income due to differences in common standards such as experience, living standard and education.

Thirdly, in the intellectual economy, the problem is not only creating knowledge but also acquiring and spreading knowledge. Employees with scientific knowledge and creative capacity are increasingly taking up a high proportion. In the development of the knowledge economy, workers become knowledge workers in industrial zones, who are scientific workers directly involved in the production process, often referred to as "white-collar workers". , the number of workers in the workplace is only a factor of the number of workers who work on the machines, and the number of workers increases.

1.2 Knowledge economy development in Vietnam

For Vietnam, developing knowledge economy is a process of changing the economic, cultural and social environment ... to encourage and enhance the ability to absorb and use global knowledge sources, build Develop and disseminate endogenous knowledge capacities for sustainable socio-economic development.

In the context of globalization, science and technology develops rapidly, knowledge-based economy is developing and developing, if our country does not take advantage of opportunities, opportunities and promote the strength of the whole nation. To "shorten" the process of industrialization and modernization, our country will be far behind and inevitably threatened by other threats. Therefore, in the process of international economic integration, the development of the knowledge economy in the process of industrialization and modernization is an inevitable objective requirement to successfully implement the objectives of a prosperous people, democratic, fair, civilized. This is a great opportunity for us to "shorten" the gap compared to developed countries, if we have the capacity of endogenous and know how to integrate into the international economy.

The development of the knowledge economy in Vietnam is closely linked to the process of accelerating the industrialization and modernization of the country

The task of speeding up the industrialization and modernization of the country is determined by the Party: "... is the fundamental and comprehensive transformation of production, business, service and economic management, From the use of manual labor to mainstreaming labor with advanced, modern technology, means and methods, based on the development of industry and scientific progress. - technical, creating high productivity social labor "⁴

Development of knowledge economy in Vietnam inherits modern scientific and technological achievements

For Vietnam, the transition to socialism, bypassing the capitalist regime, was the most dominant feature, with many difficulties and challenges for Vietnam in the period of accelerating industrialization and modernization and building owners. social meaning. Therefore, the most important task of Vietnam is to promote the development of production forces on the basis of firmly based on the achievements of modern science and technology. To do that, there is no other way to take advantage of the trend of globalization and the power of the times, making use of advanced scientific and technological achievements to build the country and defend the country.

To develop the knowledge economy in Vietnam in the context of development of the socialist-oriented market economy

For Vietnam, the choice of the path to socialism is an inevitable objective, consistent with the development trend of the time and the specific conditions of the country, especially 30 years of road implementation. the innovation that our Party initiated and led. The policy of developing knowledge economy in Vietnam is the basis for ensuring the realization of the goal of the Vietnamese revolution. That is the essence of the knowledge economy, creating the necessary factors, conditions and conditions for sustainable development. Socialist orientation in the development of the knowledge economy in Vietnam, first of all, is the way to develop the socialist-oriented market economy of the Party. This approach ensures the knowledge economy develops in line with the specific conditions of Vietnam: both serving the objective of economic growth and ensuring the development of social factors. The highest goal is to constantly improve the material and spiritual life of the people, promote the people's mastery, protection of natural resources and ecological environment. Especially, in the process of development, people are considered as the subject, the main source and the goal of sustainable development.

Knowledge economy contributes to boosting economic development in Vietnam

Knowledge economy not only adapts to high quality human resources, but also helps Vietnam catch up with the modern science and technology revolution, the fourth industrial revolution, meeting the development requirements. lasting. Therefore, the creativity and excellence of human resources help Vietnam to reach the peak of knowledge economy development.

Innovation, innovation is the driving force of development. To improve the efficiency of the application and development of science and technology and to set up a system of innovation and

⁴ Communist Party of Vietnam (2001), Document of National Congress IX, National Political Publisher, Hanoi, p.15

creativity linking organic systems of research institutes, universities and enterprises together with state support institutions. To accelerate the creation of knowledge, use knowledge and turn knowledge into product value is the decisive factor for the development of knowledge economy. Mechanisms, policies and management organizations must force all activities and domains, all people must develop and apply modern scientific and technological achievements and new knowledge.

The limitations of education and training have not met the requirements of the development of knowledge economy in Vietnam today.

Education and training for the sources of Vietnam, most the source of the quality quality is not responded of the development development tri thức. This can be specified on all ba method: quantity, quality, database.

(1) Go to quantity: Lao động rate through training to take 50% total total power in all countries, which should give a most exposure at least to business to business 20%. Theo số liệu của Bộ Giáo dục và Đào tạo, số sinh viên / 1 dân tộc ở Việt Nam (tính 11 tháng năm 2016) là 200 sinh viên / 1 vạn dân thấp hơn nhiều so với các nước đi trước phát triển kinh tế tri thức ở Đông Á như Hàn Quốc, hoặc như Singapore. Kinh nghiệm nghiên cứu của các nước, chúng tôi thấy rằng, muốn phát triển tri thức kinh tế, nguồn nhân lực phải đạt chất lượng cao. Theo đó, number of students must be on 1 vạn dân từ 300 - 400⁵. See the sự tỷ sự sự và sự phạm tại Việt Nam hiện tại, we see that, just new reach “Theo số liệu thống kê của Bộ Giáo dục và Đào tạo năm học 2014-2015 về tổng số sinh viên ĐH, giảng viên community community (in which GS and PGS) and people are present on the 90 million users, they are only only 0,06 GS and 0,4 PGS on 10,000 civil; 5,8 GS hoặc PGS trên 100 giảng viên ĐH; 0,2 GS or PGS on 100 student ”⁶

Show the current, both country has an 168 work and working development in. So sánh rate ratio of the research and development development on the 1 dân tộc Việt Nam with a national in the region of the ASEAN and on the world is found: “average rate rate on an national of the Southern tuy in the last year, song so sánh with a national country in the area and on the world, see it at the low (with 1/5 of EU, 1/6 of Hoa Kỳ , 1 / 4,5 của Liên Bang Nga, 1/10 của Hàn Quốc so với các nước ASEAN, tỷ lệ này của Việt Nam bằng 2/3 Thái Lan, 1/3 của Malaysia, 1/10 của Singapo ”

The fact only specify that, this current at a number of column column of the tri thức of the technical of Vietnam for the information of the information, it will be used with it... each year to be need 80,000 to 100,000 who in the artist information, but average average only have 30.000 student information. Make a training in the training training for the Vietnam of the training of Vietnam are no be used like the use of the information of business.

⁵ Le Thi Hong Diep, Development of high quality human resources to meet the requirements of developing the knowledge economy in Vietnam, National University Publishing House, Hanoi, 2012, p.107

⁶ <https://nld.com.vn/giao-duc-khoa-hoc/viet-nam-co-lam-phat-giao-su-2016042921572558.htm>

The comment is a non numeric column column in the development of tri thức tri thức ở Việt Nam như: công nghệ sinh học, new text, new power, also out of status. Show the KEI number only in Vietnam is very low, "so with water in the area, the number of KEI number of the number of the number of the number of the only of the new business group business ... lower than many so với malaixia, Thái Lan, Trung Quốc, Philippin"⁷

(2) In terms of quality, the educational level of Vietnamese people is still low compared to the requirements of developing knowledge economy. Pupils aged 15 to 18 have a lower secondary school diploma of 89.46%, the proportion of trained workers with degrees and certificates is nearly 80% of workers aged 15 and over. . Currently, 72% of IT students do not have hands-on experience, 42% lack the skills to work in a team. In fact, in Vietnam, recruiters are always "thirsty" for high quality human resources, despite their many favorable policies. Although many bachelors and engineers have been trained, the unemployment rate among those with university or higher degrees is still high, as of the third quarter of 2017. "The number of unemployed people with university and higher is 237 thousand people. , an increase of 53.9 thousand people compared to quarter 2/2017; the unemployment rate of this group is 4.51% (last quarter was 3.63%). There are 84.8 thousand people unemployed in the college level, increasing by 2.2 thousand people compared to quarter 2/2017; the rate of this group slightly decreases to 4.88% but it is the highest rate. The group of secondary level has 95.5 thousand unemployed people, increasing by 2.8 thousand people; its unemployment rate is 3.77%."⁸.

In general, Vietnam's current labor quality "reached only 3.79 points (on a scale of 10), ranking 11 out of 12 countries surveyed in Asia. While Korea reached 6.91 points; India reached 5.76 points; Malaysia scored 5.59 points. Vietnam's labor force is weak in quality, inadequate and creative, labor-intensive. ", 11 times lower than Japan's labor productivity, 10 times lower than Korea's labor productivity and = One fifth of Thailand's labor productivity, two fifths of Thailand's labor productivity ... while less developed economies have higher labor productivity growth than Vietnam such as productivity of Laos = 0.93 times of Vietnam in 2008, but catch up with Vietnam in 2015; In 2008, Mianama's labor productivity was 0.51 times Vietnam's labor productivity, rising to 0.55 times that of 2015. This shows that Vietnam's competitiveness is weak and the risk of falling. The economy is far from clear.

(3) The structure of training in terms of professional qualifications in Vietnam is also unreasonable. According to a recent survey, among the 12.07 million trained workers with degrees and certificates of primary and higher education, university and higher 5.40 million people; colleges have 1.80 million people, intermediate level 2.82 million people; Primary level is 2.05 million people⁹

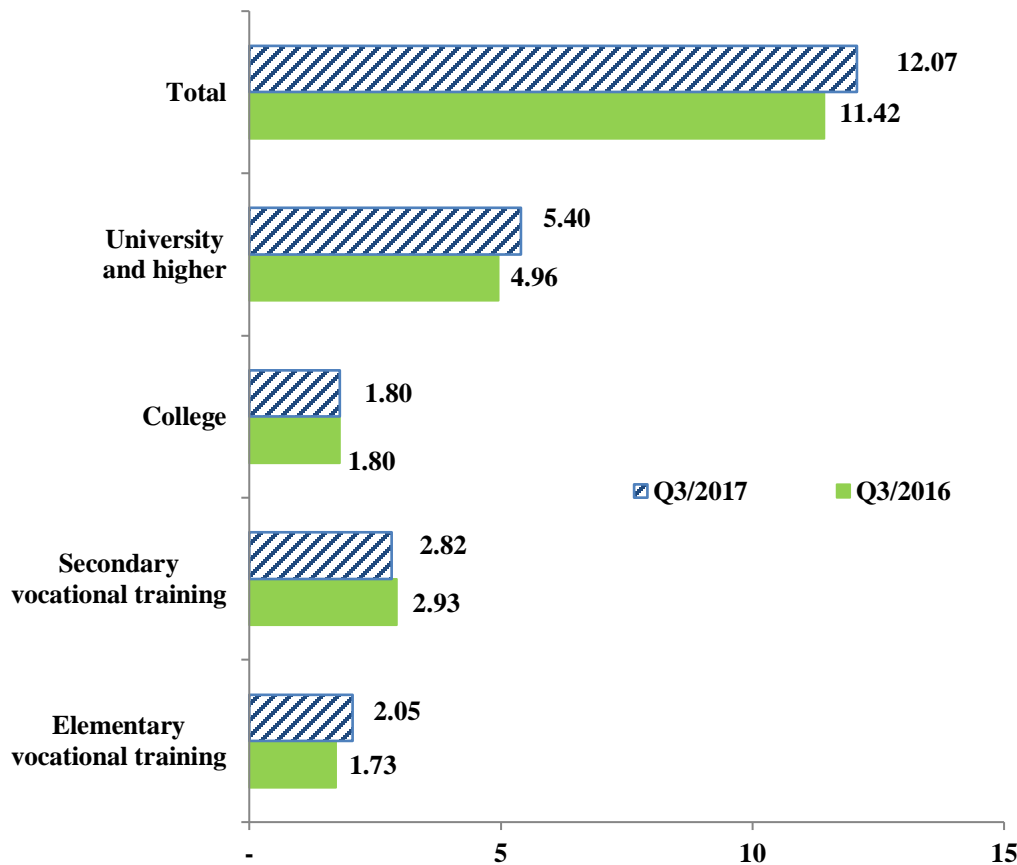
⁷ Ministry of Science and Technology, Vietnam Science and Technology 2016, Science and Technology Publishing House, Hanoi, 2016, p.177

⁸ MOLISA, Newsletter Vietnam Labour Market Update, Vol 15, Q3, 2017<http://www.molisa.gov.vn/vi/Pages/ThongTinTheoTheLoai.aspx?theloid=5&IsAP=1>, tr.6

⁹ MOLISA, Newsletter Vietnam Labour Market Update, Vol 15, Q3, 2017<http://www.molisa.gov.vn/vi/Pages/ThongTinTheoTheLoai.aspx?theloid=5&IsAP=1>, tr.2

. Figure 1. Number of workers by technical expertise, quarter 3/2016 and quarter 3/2017

Unit: million people



Source: GSO (2016, 2017), Quarterly Labor Force Survey

This reflects a serious imbalance in the structure of trained labor between higher education and vocational education in Vietnam. To develop the market economy not only to develop the number of human resources with university or higher level but also to ensure the structure of training according to the technical qualifications. Based on the experience of developed countries, the structure of technical and professional labor for the development of the knowledge economy is as follows: For every one college-level laborer, there must be 5 qualified laborers secondary professional and 10 technical workers. To achieve this, the education and training sector in Vietnam must make further progress in higher education and career education - those who directly apply science in production and life. In fact, the number of business and management groups in Vietnam is being opened up to the most 403 sectors, followed by teacher training with 363 branches, training of humanities and social sciences. technical sector 232

sectors, computer and information technology 150 sectors ... whereas agriculture, agriculture, forestry and fisheries have only 116 sectors, production and processing only 47 sectors, social services 16, transportation of 12 branches. This structure is not suitable for the development of knowledge economy in Vietnam.

Therefore, in order to bring into play the advantages of an agricultural country, Vietnam must focus on developing high quality agriculture with high demands on human resources in this field. the manpower it needs. This is a great obstacle preventing Vietnam from developing its advantageous and advantageous production compared to other countries in ASEAN and other countries in the world.

As of February 2017, 235 universities nationwide are under the management of the Ministry of Education and Training and more than 1,000 colleges, secondary schools and vocational centers managed by the Ministry of Labor, Invalids and Social Affairs (not including the system of armed forces), the scale of training in Vietnam today is very large. Despite this, the system and scale of training is so great but can not meet the requirements of quality human resources for the development of knowledge economy. The labor force is young and abundant but not properly trained and exploited so that "labor is currently contributing the least to economic growth, less than 20%, while in other ASEAN countries, Contribution of aggregate productivity factors is 35-40%, in developed countries 60-70%"¹⁰.

This situation is due to the low quality of education and training in Vietnam compared to the demand for human resources for the development of the knowledge economy. Training and planning work force sectors are also overlooked. The current school only training the school has, not catch up the development trend of education - training is to develop creative ability, personalization program and application of new technology in teaching. Study: Machine learning - deep learning with artificial intelligence (AI) approach to new knowledge.

This is a hindrance to the development of the knowledge economy in Vietnam at present and in the future, the weakness in the quality of education and training of human resources, especially high quality human resources remains a problem. The "hot" always pose great urgency for the development of the knowledge economy in Vietnam.

1.2 The role of education and training in the development of the knowledge economy in Vietnam

Education and training in the development of the knowledge economy in Vietnam is a system of perspectives, organizations and pedagogical activities and scientific research in order to comprehensively develop the qualities, capacities and perfection of personality. To improve the quality of human resources so as to be able to apply modern scientific and technological

¹⁰ Central Committee for Propaganda and Training, Reference Materials for the Study of Documents of the 11th National Party Congress, National Political Publishing House Truth, Hanoi, 2011

knowledge to production and business as well as socio-economic development for the target of rich people, Strong, democratic, fair, civilized.

First, over the past years, Vietnam's education and training has played an important role in creating high quality human resources, initially meeting the needs of developing knowledge economy in Vietnam. These human resources are continuously increasing in quantity and quality, diversifying in the industry structure. From 2016 until now, the rate of trained labor at all levels is increasing "from 40% in 2010 to 51.6% in 2015; Vocational training for rural workers is paid attention. In the period 2010 - 2015, over 4.1 million rural workers were trained under the scheme 1956¹¹.

Higher education, vocational education is promoted in both size and quality. The number of trained workers with diplomas and certificates continues to be improved. "The labor force aged 15 years and over, with technical qualifications, degrees and certificates for three months or more, is 11.3 million, accounting for 21.52% of the labor force, of which the sharp increase in the intermediate group (6.53%), the college group (4.24%), the primary group (3.11%), study and postgraduate (2.98%) "¹²

It is noteworthy that post-graduate education and training has grown dramatically. "In 2012, it will train nearly 4000 Ph.Ds and 50,000 masters. By 2014, the education sector will increase the size of postgraduate training, made up 7% increase in doctoral degree, 5%¹³ increase in master degree ". At the same time, PhD programs abroad and doctoral programs under Project 322 and 911 of the Ministry of Education and Training are implemented drastically. Up to the beginning of 2014, the country has 130 doctoral training establishments and more than 150 masters training institutions, education and training about 20 thousand to 25 thousand masters and thousands of doctors "¹⁴

Secondly, Vietnamese education and training has initially played a role in enhancing the quality of high quality human resources with professional capacity, professional practice capacity, adaptive capacity, research capacity and potential career development. Many training disciplines of Vietnam have reached the regional and international level. At the 11th ASEAN Professional Examination in 2016, the Vietnamese delegation had 44 candidates attending 22 official professions, achieving very good results, ranking third in 8 countries. In the occupation groups, the Vietnamese delegation won 10 individual gold medals, including hi-tech machine maintenance, mechatronics, electronics, design, mechanical engineering and brick making. In

¹¹ Communist Party of Vietnam, Document of the 12th National Party Congress, National Political Publishing House Truth, Hanoi, 2016, p.228

¹² Communist Party of Vietnam, Document of the 12th National Party Congress, National Political Publishing House Truth, Hanoi, 2016, p.2

¹³ Ngo Thi Nu, Development of intellectual capacity of Vietnamese people in the face of international integration requirements, Journal of Social Sciences, No. 3 (100), 2016, p.38

¹⁴ Ngo Thi Nu, Development of intellectual capacity of Vietnamese people in the face of international integration requirements, Journal of Social Sciences, No. 3 (100), 2016, p.39

addition, the Vietnamese delegation also won 5 silver medals, 4 bronze medals and 15 excellent profession certificates.

Third, science and technology with the role of education and training meet the requirements of developing knowledge economy in Vietnam.

Education and training not only play an important role in the development of the knowledge economy, from the perspective of raising the people's intellectual level, training human resources and fostering talents but also playing an important role in the development of the Faculty. learning and technology on the basis of creativity, transfer of modern scientific and technological knowledge to all fields of social life together with education and training, acting as a "national policy" . Therefore, the development of education and training is always accompanied by the development of science and technology, which is the key to speeding up the country's industrialization and modernization, developing the knowledge economy, helping Vietnam reach to the advanced level of the region and the world.

Along with education and training, scientific research and technology transfer are increasingly focused, especially in higher education institutions and vocational education in Vietnam in recent years. This is the function and task of the education and training institutions set forth in the Education Act (amended 2009), the Higher Education Act (2012), the Vocational Education Act (2013) . Currently in Vietnam, education and training institutions have built many research and development organizations. "Of the total of 1055 science and technology organizations nationwide, higher education institutions (including academic institutions, universities and colleges), accounting for 32.0%, 47.9% of research and development organizations, and 20.1% of scientific and technological service organizations. % organization [24, p. seventy three]. In terms of human resources for scientific research, the above-mentioned establishments have "research and development human resources" of 74,217 people, accounting for 45% of total research and development human resources nationwide [24, p. eighty six]. This is a favorable condition for education and training establishments to promote scientific research, technology transfer, and application of scientific and technological knowledge to production and business, to promote economic development. in Vietnam.

Research and application of science and technology in industry, agriculture and services are making important contributions to socio-economic development. Significantly, some key industries of the knowledge economy such as biotechnology, information technology, new material technology and high technology have been developed to the ASEAN and international level. . These contributions contribute to accelerate industrialization, modernization and development of the knowledge economy. It can be said that the role of education and training is great for the development of science and technology, the development of the knowledge economy. It becomes a place of origin to create new values, new products, new ways. As a result, education and training become an important manufacturing sector in the process of developing the knowledge economy in Vietnam.

In short, the role of education and training has not been fully realized in the development of the knowledge economy in Vietnam. This is a great barrier for Vietnam's leaders and the education

and training sector to make sound decisions to fundamentally reform the Vietnamese education system. This is a prerequisite for the development of the knowledge economy in Vietnam.

CONCLUSION

Education and training in the development of the knowledge economy in Vietnam has a great role and mission to improve people's knowledge, train human resources, foster talents, build and develop Vietnamese people. Only to receive and use modern science and technology but also to create new scientific and technological knowledge for the development of the knowledge economy. Therefore, fundamental and comprehensive reform of education and training is identified as a fundamental breakthrough, a key element in the development of the knowledge economy in Vietnam today.

Promoting the role of education and training in the development of the knowledge economy in Vietnam now requires education and training to improve the quality of human resources, foster talents for the country, create tri new science and technology to fulfill its mission: to apply the achievements of the 4.0 industrial revolution to the development of the knowledge economy in Vietnam. That is the best way to achieve the goal of a prosperous people, a strong country, a democracy, a fair and civilized country.

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