

# DEVELOPING VIETNAM'S HIGH-QUALITY HUMAN RESOURCES IN CONDITIONS OF INDUSTRIAL REVOLUTION 4.0: SOME THEORETICAL ASPECTS

Nguyen Huu Hoi Email: [Nguyen684@scientifictext.ru](mailto:Nguyen684@scientifictext.ru)

*Nguyen Huu Hoi - Postgraduate,  
POLITICAL ACADEMY, HANOI,  
Lecturer,  
FACULTY OF SOCIAL SCIENCES AND HUMANITIES,  
UNIVERSITY OF COMMUNICATIONS, NHA TRANG,  
SOCIALIST REPUBLIC OF VIETNAM*

**Abstract:** *In the modern period, human resources are considered as a leading factor that determines the scale, speed, nature and effectiveness of the socio-economic development of all countries. Human resource training for development is always an urgent requirement of the reality and is also a matter that needs to be carefully studied from the theoretical perspective. In this article, based on the identification of the basic nature of the Industrial Revolution 4.0 and the requirements for Vietnam, the author analyzes some theoretical aspects related to the high-quality human resource development to meet the new requirements of the era. The author emphasizes the need to be aware of the role of the three pillars of high-quality human resources in Vietnam at present - intellectuals, managers and entrepreneurs.*

**Keywords:** *Industrial Revolution 4.0, human resources, knowledge economy, science, management, policy, Vietnam.*

## РАЗВИТИЕ ВЫСОКОКАЧЕСТВЕННЫХ ЧЕЛОВЕЧЕСКИХ РЕСУРСОВ ВЬЕТНАМА В УСЛОВИЯХ ПРОМЫШЛЕННОЙ РЕВОЛЮЦИИ 4.0: ТЕОРЕТИЧЕСКИЕ АСПЕКТЫ

Нгуен Хью Хой

*Нгуен Хью Хой - аспирант,  
Политическая академия, г. Ханой,  
преподаватель,  
факультет социальных и гуманитарных наук,  
Университет коммуникаций, г. Нячанг,  
Социалистическая Республика Вьетнам*

**Аннотация:** *в современный период человеческие ресурсы рассматриваются как ведущий фактор, определяющий размер, скорость, характер и эффективность социально-экономического развития всех стран. Подготовка людских ресурсов в целях развития всегда является насущным требованием реальности, и в то же время это вопрос, который необходимо тщательно изучить с теоретической точки зрения. В данной статье, основанной на выявлении основного характера промышленной революции 4.0 и требований, предъявляемых к Вьетнаму, автор анализирует некоторые теоретические аспекты, связанные с развитием высококачественных человеческих ресурсов, чтобы соответствовать новым требованиям времени. В частности, автор подчеркивает необходимость осознавать роль трех столпов высококачественных человеческих ресурсов сегодня во Вьетнаме - интеллектуалов, управленческого класса и бизнес-класса.*

**Ключевые слова:** *революция «Индустрия 4.0», человеческие ресурсы, экономика знаний, наука, управление и политика, Вьетнам.*

UDC 331.04

Human resources are the most important constituent element of the social production force and determine a nation's strength. Vietnam is a country with the advantage of abundant, industrious and smart human resources who are capable of quickly acquiring new scientific and technological achievements. This is an important resource for the country to successfully implement the socio-economic development strategy that has been adopted by the Party and the State of Vietnam. However, Vietnam's human resources are assessed to not meet the requirements of the socio-economic development and international integration, and have not made significant contributions to increasing social labor productivity, improving competitiveness and escaping from the "middle income trap". In order to promote industrialization and modernization of the economy, Vietnam needs to develop human resources of high-quality, high-qualification and ability to quickly adapt to the rapid changes of science and technology, ensuring the modern and sustainable development of Vietnam's economy.

## **Nature of Industrial Revolution 4.0 and necessity in developing high-quality human resources in Vietnam**

The Industrial Revolution 4.0 is the current trend in automation and data exchange in the production technology. It consists of cyber-physical systems, Internet of Things, cloud computing and cognitive computing. System administration, cloud computing, smart mobile devices, artificial intelligence, big data, etc. are the great values brought by the Industry Revolution 4.0, creating maximum conditions to promote the commodity production development. Human resources who are involved in the manufacturing process in offices and plants will be minimized and artificial intelligence and digitized data will help the production process go beyond the human imagination. Robots will replace humans in hard work, including those requiring complex and detailed calculations [1, p. 288-290]. The Industrial Revolution 4.0 is essentially a revolution in applying the values of the digital technology. It fundamentally changes the mode of production and creates mutant labor productivity. On one hand, this revolution creates many opportunities for the economy to grow stronger, and on the other hand it is a great challenge. If the countries cannot seize the opportunities, they will be left behind and grow slowly.

In the context of the fast development of knowledge, science and technology of this new revolution, Vietnam is well aware of its advantages and challenges to the economy. The urgent task is to develop and improve the quality of human resources - a leading factor in the development of each nation [1, p. 6]. High-quality human resources are understood as a highly-educated and highly-specialized workforce, especially able to meet the complex and ever-changing requirements of the work to bring in high productivity and efficiency, contributing to the growth and development of each unit in particular and the whole society in general [6, p. 26-27].

### **Three most important pillars of high-quality human resources**

The current growth model of Vietnam is mainly based on abundant and cheap human resources and large material investment. The impressive development of Vietnam in recent years is partly thanks to the result of the labor transfer from the agricultural sector to the industrial and service sectors [6, p. 27]. However, it is clear that if Vietnam continues to develop with this model, the labor productivity will reach a certain limit, due to a severe shortage of high-quality labor force. As a result, Vietnam will fall into the low and middle income trap and face competition from newly emerging low-income countries [1, p. 5]. Therefore, the urgent requirement is that Vietnam will have to switch to an economic growth model based on productivity and competitiveness in the coming time. To accomplish this task, it is necessary to give top priority to high-quality human resources.

According to the most common perception, human resources are the entire working-age population who are capable of participating in the labor process. However, not all parts of human resources have the same role for development. Therefore, to maximize the strength of the country's human resources, it is necessary to identify the roles of the parts of the human resources, in other words, it is necessary to determine what are the pillars of the high-quality human resources [5, p. 30-31]. Then, these pillars will act as the pioneering and the most powerful force to help attract all other working classes to the common apparatus on the national construction site and proactively integrate into the country in globalization process [3, p. 5].

According to some researchers, intellectuals, politicians - managers and entrepreneurs must be considered the three most important parts that determine the quality of human resources and the quality of development of the country development [3, p. 5]. From the perspective of the quality of human resources, this is the high-quality human resources of a modern society. Only when promoting the synergy of these three human pillars, other resources will be well exploited, and the country's rapid development becomes feasible.

Intellectuals are understood as the intellectual workforce and the high-skilled workforce. When the knowledge economy is increasingly developing, the team of intellectuals and skilled laborers is also a key force for the general development, determining the speed of social development and the development orientation of the country in the new period, and as talents and the nation's sap, this force will determine the country's future [3, p. 5]. The development of this quality human resource must be based on new thinking, with new concepts and new ways of doing in accordance with new rules and rules of the knowledge economy, which are different from the rules of the industrial economy that are dominant at present.

Entrepreneur class includes medium and large entrepreneurs. They are those who help to realize intellectuals' new scientific, technical or technological innovations into products, and bring them into life as commercial products to serve the society. In other words, without the entrepreneur class, intellectual products would not be able to become consumer products and generate real profits.

Politician - manager class is understood as middle and senior managers. They are those who set out policies and orient the development. No matter how talented and abundant the intellectuals and entrepreneurs are, with the weak managers of all levels, it is difficult for the society to have a common strength to enable the country to develop rapidly and robustly in the right and sustainable direction.

All three classes are considered as three pillars, forming the spearhead of the country's human resources. The combination of them will change the basis of the social human resource quality and determine the speed and the development trend of the future society. In terms of internal resources, if all three classes are united, they will create a synergy that has a decisive impact on the speed and quality of any country's development. In contrast, if

a certain class in this human resource triangle is weak, the society movement will face many obstacles [3, p. 6-7].

Therefore, in terms of both theoretical and practical aspects, when it comes to the country's high-quality human resources, first of all, we must mention its three pillars: intellectual class, entrepreneur class and politician - manager class. Each pillar plays a different role in the development and international integration, but they complement each other and connect dialectically with each other. The lack of any one of the three pillars also leads to negative consequences for the development.

#### **Orientations for high-quality human resources in Vietnam**

The above analysis points to the fact that any country today cannot embark on building the knowledge economy, using the scientific and technological revolution and participating in the globalization if the three human pillars are not paid attention. These three pillars of high-quality human resources will be the driving force for the movement of the modern society. They will play the role of three leading forces in developing the country to meet the demands of the era.

The situation shows that Vietnam is still in a state of abundant unskilled labor without a high-quality workforce. The team of intellectuals in many sectors is in shortage, even at risk of falling behind. Entrepreneurs have not had enough time to grow up, have not had enough quality to be able to shoulder responsibility for the nation in the context of globalization, integration and development. The quality of the state apparatus management team has not met the needs of the country development in the new context. In general, the professionalism of these three human pillars of Vietnam is still limited. In addition, in recent years, Vietnam has mainly focused on developing human resources on a large scale and carrying out vocational training for all population classes. This is a very right direction to provide human resources for the fast-growing needs of the manufacturing process. However, in the context of developing the Industry Revolution 4.0, besides developing the quantity of human resources, it is necessary to pay attention to high-quality human resources with the above-mentioned three pillars. Clearly, without the quintessential forces such as excellent entrepreneurs, talented managers, elite scientists and technicians, Vietnam cannot modernize its economy or cannot actively participate in the global economic value chains. With the increasing demands of a modern economy, abundant human resources will no longer be a great advantage, it will make way for high-quality human resources - that plays a key role for the development.

Therefore, to be proactively enter a highly developed market economy and knowledge economy in the context of developing the Industry Revolution 4.0, Vietnam needs to actively develop and train high-quality human resources for the country. First of all, it is necessary to create a unified national strategy for talent development to train high-quality human resources. This strategy requires a new mindset, combining the synergy of national elites and modern achievements of the world. This is not only the task of education and training, but also the social responsibility of the whole community and the whole country [4, p. 87].

#### **Conclusion**

In the context of the Industrial Revolution 4.0, only by identifying and improving human resources development as a key driving force for sustained economic growth and overall implementation of solutions, Vietnam can successfully implement the strategy of "taking a shortcut", turning the population burden into a competitive advantage in the future [1, p. 9].

#### ***References / Список литературы***

1. *Dang Truong Minh*. Quality of Vietnam's human resources through Vietnam Competitiveness Report 2010 // Social sciences information, 2011. № 3. Pp. 3-9
2. *Dang Xuan Tam*. Impact of the 4th Industrial Revolution on the world economy, opportunities and challenges in Vietnam's international economic integration process. Document of Vietnam International Economic Integration Forum, 2018. Pp. 287-302.
3. *Luong Dinh Hai*. Responsibility for training human resources in Vietnam's current market economy // Philosophy, 2009. № 6 (217). Pp. 3-9
4. *Ngo Thi Thu Ha*. Role of education and training in human resource development in Vietnam today // Vietnam Social Sciences, 2014. № 3 (76). Pp. 85-92
5. *Nguyen Phan Thu Hang*. Role of high quality human resources in promoting science and technology application and innovation // Science and Technology Development. T. 19. № Q2. Pp. 30-40.
6. *Nguyen Thi Hien*. Developing high-quality human resources in the knowledge economy // Social sciences information, 2018. № 7. Pp. 26-33