

Development of Human Resources Directly Application of Business Demands Industrial Revolution 4.0 Arbitration

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Abstract: In the context that the 4.0 revolution is having an increasingly profound impact on all aspects of social life in the world, developing high-quality human resources is absolutely necessary for the country and meeting the needs of the society. Recruitment demand from enterprises in Vietnam. The article provides an overview of the current situation of high-quality human resources, on that basis, forecasts about the country's demand for high-quality human resources.

Keywords: Business needs; Development of human resources; High-quality human resources; Industrial revolution 4.0; Vietnam

I. Overview of the current situation of high-quality human resources in Vietnam

In our country, the first time the term high-quality human resources appeared was in the Document of the 10th Party Congress that affirmed "Fast development of high-quality human resources, especially leading experts". This shows that in Vietnam's human resource development strategy, there are new points, in which focusing on developing high-quality human resources, seeing it as a breakthrough to soon bring our country out of underdevelopment. , at the same time creating rapid development, meeting the requirements of the international integration process.

In "Human issues in the cause of industrialization and modernization", Prof. Dr. Pham Minh Hac focuses on "level" and "capacity" when giving the concept that high-quality human resources are: A team of highly qualified and capable human resources, is a shock force to receive advanced technology transfer, effectively implement the application in our country's conditions, is the nucleus to bring their fields into the market. Industrialization and modernization are expanded in an "oil slick" fashion, by leading the departments with lower qualifications and capabilities to move up at a fast pace.

According to Prof. Dr. Nguyen Trong Chuan in "Research on human culture, human resources in the early 21st century" introduced the concept of "a new human resource" to refer to "educated and qualified workforce" high level of expertise and especially the ability to quickly adapt to rapid changes in production technology". The author only focuses on education and expertise.

Thus, high-quality human resources have been introduced and understood from many angles depending on the specific criteria set, in the most general perspective we can understand as follows: High-quality human resources is the Part of the workforce has a high level of education and technical expertise or has good labor skills, has creative capacity, and must have industrial manners and work ethics. In which, the two main characteristics of reflecting the quality of human resources are professional training and occupation.

In Vietnam's human resource development strategy for the period 2011-2020 according to Decision No. 579/QD-TTg dated 19/04/2011, the state has set the main targets for human resource development in the period 2011-2020, Vision 2030 is as follows:

Table 1: Some key indicators of human resource development in the period 2011-2020

Targets	2010	2015	2020
I. Improve intellectual capacity and labor skills			
1. Proportion of trained workers (%)	40	55	70
2. Proportion of trained workers (%)	25	40	55
3. Number of university and college students per 10,000 population (students)	200	300	400

4. Number of international-class vocational schools (schools)	-	5	>10
5. Number of excellent universities reaching international level (schools)	-	-	>4
6. Highly qualified human resources in breakthrough fields (people)			
- State management, policy making and international law (people)	15.000	18.000	20.000
- Lecturer at universities and colleges	77.500	100.000	160.000
- Science and technology	40.000	60.000	100.000
- Medical, health care	60.000	70.000	80.000
- Finance - banking	70.000	100.000	120.000
- Information technology	180.000	350.000	550.000
II. Improve fitness			
1. Average life expectancy (years)	73	74	75
2. Average height of young people (meters)	>1,61	>1,63	>1,65
3. Malnutrition rate of children under 5 years old (%)	17,5	<10	<5

(Source: Vietnam's human resource development strategy for the period 2011-2020)

Statistics of Vietnam's trained human resources and classification by professional and technical qualifications show that the common point is that the percentage of trained workers tends to increase but still accounts for a relatively low level, approximately 20% of the workforce. labor volume.

Table 2: Statistics on the proportion of laborers aged 15 years and older working in the economy who have been trained by professional and technical qualifications from 2016 to 2020

Year Level	2016	2017	2018	2019	2020
Not trained yet	83,4	82,1	81,8	80,1	79,4
Trained	16,6	17,9	18,2	19,9	20,6
Inside					
Vocational training	4,7	5,3	4,9	5,0	5,0
Intermediate	3,6	3,7	3,7	3,9	3,9
College	1,9	2,0	2,1	2,5	2,7
University and above	6,4	6,9	7,6	8,5	9,0

(Source: General Statistics Office, Vietnam)

Table 2 shows that Vietnam has a very large proportion of untrained technical qualifications (more than 80%) although this percentage has decreased over the years from 2016-2020. This reflects the alarming situation of human resources, though numerous but lacking in expertise, which is a major obstacle for Vietnamese workers to participate in the AEC's common labor market. Besides, Vietnam's trained labor force with university or higher level accounts for a high proportion compared to vocational, intermediate or college workers. This leads to an oversupply of teachers and a shortage of workers, as well as a waste of social resources for training as well as inefficiencies in the use of human resources.

The annual working force statistics by occupation highlight the disparity between workers in simple occupations and skilled workers, although this disparity is growing, shrinking trend.

Table 3. Statistics of laborers aged 15 and over working by occupation from 2016 to 2020

(Unit: percentage)

	2016	2017	2018	2019	2020
TOTAL	51.422,4	52.207,8	52.744,5	52.840,0	53.302,8
Leaders	532,0	551,0	573,4	570,1	555,0
Advanced technical expertise	2.817,7	2.968,4	3.221,7	3.447,8	3.659,0
Intermediate technical expertise	1.745,0	1.698,6	1.640,1	1.668,0	1.639,0
Staff	839,3	881,5	911,1	960,9	991,9

Personal service, sales protection	8.213,8	8.461,8	8.492,7	8.735,4	8.861,4
Occupations in agriculture, forestry and fishery	6.533,2	6.280,4	6.444,6	5.456,6	5.470,9
Craftsmen and other related workers	6.055,7	6.274,5	6.312,2	6.349,1	6.827,0
Assembler and operator of machinery and equipment	3.728,5	3.637,4	3.888,8	4.493,8	4.921,6
Simple job	20.828,9	21.326,5	21.124,2	21.035,1	20.247,8
Is different	128,3	127,7	135,7	123,3	129,2

(Source: General Statistics Office, Vietnam)

Overall assessment of human resources shows that Vietnam currently has 53 million people of working age, which is considered a strength compared to other countries in the region to attract foreign investors. In 2015, data from the General Statistics Office showed that the average income of Vietnamese workers reached 79.3 million VND/year (about 3,657 USD/year). This income range is low compared to other countries in the region and is uneven across industries and fields. According to the World Bank (WB), Vietnam is facing a shortage of skilled workers and high-level technical workers. Regarding the quality of human resources, Vietnam only reached 3.79/10 points, ranking 11/12 Asian countries participating in the World Bank's ranking. The heat from integration has promoted a strong increase in investment and business in the ASEAN region, leading to an increase in the demand for human resources.

II. Developing high-quality human resources in Vietnam in the context of industrial revolution 4.0

2.1. Development strategy orientation

According to the Government's action plan for the 2016-2021 term, issued together with Resolution No. 100/NQ-CP dated November 18, 2016 of the Government, identifying key tasks, mainly focusing on directing management, including the task of Focusing on implementing solutions to innovate the model and improve the quality of growth, increase labor productivity and the competitiveness of the economy. To accomplish that task, the government must drastically restructure the overall economy and restructure industries and fields in the direction of increasing innovation, creativity, application of scientific and technological advances, improving high productivity, quality and competitiveness, building a dynamic, efficient and integrated economy, including: Accelerating agricultural restructuring in association with new rural construction; Strongly develop industry and construction, step by step create the foundation for industrialization and modernization; Promote the development of service industries.

In Vietnam's Industrial Development Strategy to 2025, with a vision to 2035, the Government has identified 3 groups of industries to choose priority for development, including: Manufacturing industry, Electronics and telecommunications industry communication, New energy and renewable energy. At the same time, the Strategy also orients spatial planning according to the same territories, which will include core industrial zones and buffer industrial zones, in which localities in the core zone include 4 key economic zones and 5 marine economic zones. development is prioritized.

The master plan sets out targets and orientations to 2020, with a vision to 2030. The plan focuses on 10 major industries such as: mechanical engineering - metallurgy; chemistry; electronics and information technology; textile-leather and footwear industry; agro-forestry-fishery, food and beverage processing industry; construction material manufacturing industry; mining and mineral processing industry; Power industry; coal industry; oil industry. The new point of the planning in this period is to orient the development of supporting industries, focusing on 3 industries including mechanics - metallurgy; electronics - informatics, textile - footwear. In which, it is determined to build supporting industrial zones and clusters in Hanoi, Vinh Phuc, Bac Ninh, Hung Yen, Hai Phong, Dong Nai, Ba Ria-Vung Tau, Binh Duong, Tay Ninh and Da Nang.

The spatial distribution planning of the territory is divided into five regions, in which the Northern Midlands and Mountains region focuses on developing the mining and mineral processing industries, the processing of agricultural and forestry products, and industry. hydropower, some metallurgical projects. The Red River Delta region develops mechanical industry, metallurgy, chemical, thermal power, high-tech industry; Selectively develop supporting industries for the production of mechanical components, automobiles, motorcycles and electronic components. The Central Coast region (including the Central Key Economic Zone) develops construction materials manufacturing, seafood processing, shipbuilding mechanics, metallurgy and industries associated with transportation advantages. sea load. The Central Highlands region develops industrial tree processing industry, mining and mineral processing, and building materials production. The Southeast region (including the Southern key economic region), to develop the

mechanical, oil and gas industries and petrochemical, chemical, electronic and high-tech industries; research and development of supporting industries. The Mekong Delta region (including the key economic region of the Mekong Delta), focusing on developing the processing industries of agricultural products, seafood for export, mechanical industry in service of agriculture, manufacturing and exporting. repair all kinds of offshore fishing vessels.

These plans will be the basis for determining the demand for using high-quality human resources in each industry and each key economic region in the coming time.

2.2. Forecast of human resource needs by group of professional and technical qualifications

In recent years, Vietnam has had a series of policies and programs aimed at developing vocational training and improving qualifications for workers. As a result, the number of workers participating in vocational training has increased rapidly, contributing to improving the quality of human resources for the country. The number of workers who have received vocational training is still modest, while the percentage of workers who have attended professional colleges and universities is high, this situation is not expected to change dramatically in the coming time. The proportion of workers without technical expertise still accounts for a very high proportion but is decreasing and decreasing sharply compared to the previous year, in 2016 this rate was 79.1%, by 2020 this figure will be 74,3%. The second fastest increase is the group of highly qualified workers with 9.4% of workers with university degrees in 2016 and then 12% in 2020. The group of workers with vocational training and other qualifications also tends to increase. proportion but not much compared to the two groups above.

III. Discussion

The impact of the industrial revolution 4.0 has brought advantages of high-skilled labor rotation within the bloc and higher requirements for high-quality human resources. This is both an opportunity and a challenge when Vietnamese workers currently have weak competitiveness in the region and in the world. Therefore, in addition to preparing a highly skilled workforce to be able to compete and rotate within the bloc, it is necessary to train, improve skills and increase the number of qualified human resources. high quality to ensure competitiveness, to supply demand in the domestic market. Without high-quality human resources to meet the industrial revolution 4.0, we can hardly expect to have Industry 4.0 in Vietnam and cannot realize the country's development goals.

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