



DEVELOPING HUMAN RESOURCES OF ETHNIC MINORITIES IN MOUNTAINOUS AREAS OF VIETNAM FACING THE CHALLENGES OF THE 4.0 INDUSTRIAL REVOLUTION

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Abstract:

Developing human resources for ethnic minorities is essential to successfully carry out socio-economic development tasks for mountainous and ethnic minority areas. The development of modern technologies in the fourth industrial revolution has fragmented the labor market with increasing demands for the quality of the workforce if they need to be better equipped to acquire new skills - creative skills. Training human resources to meet the requirements of the 4.0 industrial revolution has become an urgent issue that many countries worldwide are concerned about, including the human resources of ethnic minorities. Therefore, developing human resources for ethnic minorities in mountainous areas of Vietnam is an urgent issue that requires feasible strategies and solutions to meet the requirements and challenges of the revolution industry 4.0.

Keywords: development, human resources, ethnic minorities, industrial revolution 4.0, Vietnam

1. Introduction

Developing human resources in general and human resources of ethnic minorities is one of the country's three strategic breakthroughs in regional and international integration.

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Over the past many years, with the attention and leadership of the Party and the State of Vietnam and the implementation of the political system at all levels in local areas where ethnic minorities live, the human resources strength of ethnic minorities has developed, contributing to promoting socio-economic growth in ethnic and mountainous regions. Faced with the impact of the 4.0 industrial revolution and achievements in many fields, such as human resource development, ethnic minorities still reveal many limitations. Therefore, in the coming time, to improve the socio-economic development of the region, training and developing human resources of ethnic minorities to meet the requirements of socio-economic development in Vietnam is an urgent issue, a key and breakthrough step that needs attention and research to scientifically chart a path to ensure sustainable socio-economic development in Vietnam today.

2. The role of ethnic minority human resources in the development of Vietnam's mountainous regions in the trend of globalization

Human resources play a decisive role in the development of a modern economy. Investing in people is always an indispensable part of the socio-economic development process of all countries [1, 2]. There is always a close relationship between human resources, capital, natural resources, physical and technical facilities, science, and technology, in which human resources are considered the Endogenous capacity that governs other resources. Human resource development is *“the process of creating and using comprehensive human capabilities for the self-improvement of each person and the development of the organization where people operate.”* [2, 10].

The human resources of ethnic minorities in the mountainous areas of Vietnam today are all ethnic minority workers - political subjects in the mountainous regions. This human resource can participate in socio-economic development processes in mountainous areas. The 4.0 industrial revolution brings new hopes to humanity about developing a new civilization. It profoundly impacts all aspects and areas of social life in all countries worldwide [3, 4]. In particular, it creates significant challenges for the training and use of human resources in general and the human resources of ethnic minorities in Vietnam. With the increase in automation and digital applications in production, the advantages of natural resources and unskilled labor are increasingly losing competitiveness, leading to a labor surplus and increasing unemployment. Ethnic minorities and mountainous people in Vietnam are in the low-income group and have not had complete access to modern technology. In addition, this is also the area with the most challenging natural conditions and terrain. Complex, fragmented, sparsely populated, and not concentrated livelihoods still need improvement. This affects the quantity and quality of human resources and increases the gap between rich and poor in mountainous areas and other areas.

Therefore, the current development of human resources for ethnic minorities in mountainous areas of Vietnam is to improve the quality of the human resource structure of ethnic minorities in all aspects, including educational level, specialization, political

attributes, ethics and lifestyle, job skill, health contributes to increasing the quality of human resources, contributing most effectively to economic and social development in mountainous areas. Suppose the quality of ethnic minority human resources in Vietnam's mountainous regions is improved. In that case, it will attract and encourage many ethnic minority intellectuals and talents to have a long-term attachment to the mountainous areas. It is essential to solve the problem of human resource quality for mountainous regions - where there is a significant lack of human resources to promote development in this area. It is a breakthrough for comprehensive economic growth and socio-economic conditions in mountainous regions. Therefore, building a strategy to develop human resources for ethnic minorities in mountainous areas of Vietnam today is the basis for orienting and creating human resources to meet the needs of the labor market in this era, and it is a truly urgent and important matter.

3. Current status of human resources of ethnic minorities in mountainous areas of Vietnam

Vietnam's mountainous region currently accounts for three-quarters of the country's area, has a divided terrain and harsh climate, and has an important strategic position in politics, economy, society, security, nationality defense, foreign affairs, and ecological environment protection. Vietnam's mountainous areas are distributed in 51/63 provinces and cities and concentrated mainly in the Northwest, Central Highlands, Southwest, and Central Coast. Most ethnic minorities live in the mountains; only the Khmer, Cham, and Chinese live in the plains and urban areas [4, 9].

In the current process of building and developing the Vietnamese state, with socio-economic strategies and plans, the Vietnamese government has directed the implementation of many programs for comprehensive development in local localities, such as mountainous areas, where many ethnic minorities live. Social welfare and public investment programs for Vietnam's mountainous regions have been implemented.

With many different guidelines and policies to promote mountainous areas and ethnic minority areas to increasingly develop, as of 2020, ethnic minority areas have had a relatively straightforward transformation. The education system has been consolidated and expanded, and the quality of education in boarding and semi-boarding schools for ethnic minorities has been improved. By 2020, the country has 294 boarding schools for ethnic minorities with 80,832 students. The rate of people aged 15 and older who can read and write general education reached 81,6%, the rate of people attending primary school reached 100%, the rate of people attending high school reached 56,5%, four schools-university preparation with over 3,000 students/year. By 2020, ethnic minorities will have over 13,000 people with postgraduate, university, and college degrees, nearly 80,000 with professional secondary degrees, and over 100,000 technical workers. Across the country, localities have sent children of ethnic minorities from 40/54 ethnic groups [5, 6].

Besides the achieved results, education and training in ethnic minorities and mountainous areas of Vietnam currently have many limitations. The school attendance

rate at the correct age is still low among ethnic minorities. About 70% of school-age students attend school at the right level. The human development index (HDI) in ethnic minority areas is shallow. In addition, medical facilities and the quality of medical staff in ethnic minority areas are lacking, weak, and inconsistent. The ratio of doctors per 10,000 people is still low, and there needs to be more medical staff with deep expertise and local staff. The rate of the trained ethnic minority workforce is meager at 6.2%, equal to 1/3 of the average rate of the national workforce. Ethnic minority men have jobs at a rate of 56%, while the employment rate for women is only 44%. This shows that the gender gap in the employment structure of ethnic minorities is also huge. The labor force of ethnic minorities and mountainous areas is mainly involved in agriculture and simple occupations, fields requiring very little high and medium technical expertise.

4. Issues facing ethnic minority human resources in Vietnam facing the demands of the 4.0 industrial revolution

Although there have been significant improvements, human resources for ethnic minorities in Vietnam's mountainous areas are currently assessed as lacking in quantity and weak in quality in all three aspects: physical strength, mental strength, and spirituality force. Therefore, the human resources of ethnic minorities in Vietnam's mountainous areas currently do not meet the country's economic and social development requirements. There are still many problems facing the development of human resources. Ethnic minorities in Vietnam face the demands of the current Industrial Revolution 4.0.

Firstly, in terms of physical strength, the majority of the ethnic minority workforce in Vietnam today is height and weight more petite than the national average, far below the average physical level of the workforce in countries around the world.

Second, in terms of mental ability, the quality of education in ethnic minority areas in Vietnam today is generally still low compared to the general level of the whole country. Although the situation of staying in class and dropping out of school has improved, it still is.

Third, in terms of mental strength, due to geographical characteristics, the areas where ethnic minorities in Vietnam live are underdeveloped socio-economically and have backward farming practices. In many places, there is still shifting cultivation, nomadism, poor health, culture, sparse population, large residential areas, and traffic disruption due to dangerous rivers and mountains.

The issues raised above show that the educational level of ethnic minorities is becoming a massive barrier to improving labor productivity and narrowing opportunities to transition or find jobs. Therefore, developing the human resources of ethnic minorities in mountainous areas of Vietnam is an important political and social issue in the context of the industrial revolution. Industry 4.0 is directly impacting Vietnam's process of building and developing the country today.

5. Proposing some content for developing human resources of ethnic minorities in mountainous areas of Vietnam today

Firstly, promote improving general education and professional education among ethnic minorities. Complete school network planning, expand the reasonable scale, and invest in standardizing school and classroom facilities to meet the requirements of mobilizing students of all ages. Diversify types of training, university training in the form of recruitment, training according to user needs, and training in the form of work and study for ethnic minority human resources. Thoroughly and promptly implement priority policies for teachers and educational administrators in ethnic minority and mountainous areas and other policies according to current State regulations. Continue to review and correct shortcomings in existing policies, research and propose specific policies suitable for students, teachers, and education managers in ethnic minority and mountainous areas.

Second, mobilize resources for investment in developing the human resources of ethnic minorities in mountainous areas. In particular, the State needs to have appropriate guidelines and policies for human resource development in mountainous regions, in which the most important focus should be investing in education, health, and health care for people in the mountainous areas. Promote socialization to develop ethnic minority human resources, especially in training, and mobilize social capital for education and training. Mobilizing all resources, mobilizing and promoting investment to attract capital from abroad, and developing and improving the quality of ethnic minority human resources are guaranteed factors and breakthroughs for the fast, effective, and sustainable development of mountainous areas.

Third, it is necessary to innovate awareness about developing, using, and managing ethnic minority human resources. We must deeply grasp the perspective of considering people as the foundation and decisive factor of sustainable development. In today's conditions of international integration and fierce competition, when natural resources are increasingly shrinking, the issue of developing the quality of human resources must be given top priority.

Fourth, improve the capacity to use technology and encourage innovation for ethnic minorities and mountainous areas. Priority is given to investment projects in research, development, and technology transfer suitable for ethnic minorities and mountainous regions. Quickly transition from a source of cheap unskilled labor to highly qualified knowledge workers to keep up with the rapidly changing technology wave in ethnic minorities and mountainous areas.

6. Conclusion

Developing human resources for ethnic minorities is essential in successfully carrying out socio-economic development tasks for mountainous and ethnic minority areas in Vietnam. The development of modern technology in the Fourth Industrial Revolution

changed the labor environment; a series of old occupations were lost, and the labor market was divided into groups of low-skilled and highly qualified workers. In particular, the Fourth Industrial Revolution threatened the jobs of low-skilled workers, and even middle-skilled workers would be affected if they were not equipped with the right skills, such as new creative skills. Training human resources to meet the requirements of the Fourth Industrial Revolution has become an urgent issue that many countries worldwide are concerned about, including the human resources of ethnic minorities. Therefore, finding solutions to develop human resources for ethnic minorities in mountainous ethnic areas in Vietnam is an urgent issue in the context of the Fourth Industrial Revolution.

Conflict of Interest Statement

The authors declare no conflicts of interest.

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