

Solutions for Developing High Quality Human Resource to Meet the Targets of Industrialization and Modernization of Nam Dinh Province

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Abstract: The article mentions the task of developing human resource to meet the needs of industrialization and modernization of Nam Dinh province in the context of market economy, international integration and knowledge economy. Raising the innovation requirements for developing high quality human resource in Nam Dinh province for socio-economic development in the direction of industry and modernity. Based on the conditions and requirements of Nam Dinh province, it is necessary to identify effective solutions to develop high quality human resource to ensure sufficient quantity, quality and uniformity of high quality human resource structure to meet the targets of industrialization and modernization of Nam Dinh province and contribute to the socio-economic development of this locality in the current period.

Key words: human resource; high quality human resource; industrialization and modernization; development; high quality human resource

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1. Introduction

In the context of the rapid development of science and technology revolution and the trend of economic globalization to promote the rapid spread of knowledge economy, Vietnam in general and Nam Dinh in particular cannot carry out the task of industrialization and modernization following the traditional way but Nam Dinh must have leapfrog, that is, industrialization and modernization must be done in association with the development of the knowledge economy, taking human capital as an important factor for development socio-economy in Nam Dinh. Nam Dinh is a province in the Red River Delta with a natural area of 1,669.2 km² and has a population of about 2,200,000 people. Nam Dinh province is about 90 km distance to the center of Hanoi city, which is very convenient for economic development. With the availability premises, Nam Dinh province is enlisting max advantage of the achievements of the 4.0 technology revolution, promoting successful implementation of the targets of industrialization, modernization and socio-economic development of the locals in Nam Dinh. However, besides the opportunities, Nam Dinh also faces the challenges especially are challenges of labor quantity and labor quality, high quality human resource to prepare for a new production period based on advanced and modern science-technology. In order to successfully solve this human resource challenges, one of the important requirements is that Nam Dinh province must find solutions to develop human resource to ensure the quantity and

quality with suitable structure is one of urgent requirements for socio-economic development of Nam Dinh.

2. Literature Review

2.1 Human Resource and High Quality Human Resource

According to Vietnamese General Statistics Office, “Human resource includes all people of working age, capable of working and people above the working age who are working in actual jobs in the economy”.

Thus, human resource is understood as encompassing all human potential, strength, in every human being and making them actively. That strength is growing with the development of the human body and to some extent, people are eligible to participate in the labor process.

“High quality human resource is the most elite part of the country’s human resource: They are leaders, businessmen, scientists and good political, ethical people with good living way, high education, good expertise, good health. They always are the people who lead in labor, create science, contribute positively and highly effectively in the cause of national construction”.

Basic characteristics of high quality human resource of a local include: the number of human resource; their quality; structure of human resource (structure of qualifications, industries and regions); the potential of present human resource as well as the level of response (effectiveness) to the local socio-economic development requirements.

High quality human resource is the most quintessential part of human resource, is the labor force characterized by high levels of education and expertise; has the capacity to apply creatively scientific and technological achievements in order to create productivity, quality and efficiency in the production and labor process; good citizenship, professional ethics.

High quality human resource is the creative workforce. Creativity is always the source and the important driving force for development. In the whole social human resource, high quality human resources are mentioned including: leaders and managers; teaching staff; scientific and technological staff; team of skilled workers; team of experts in business administration and good businessmen.

2.2 Developing High Quality Human Resource to Meet the Targets of Industrialization and Modernization

Human resource development is a very familiar term, studied by many people, used widely in human resource management, state management of human resource, and economic management in the field of human resource. Many given concepts have a wide range, narrow range and also different scope.

In the theory of human capital, human resource development is the development of intellectual capacity, personality development and biological development for labor resource. In this view, like any other assets, human resource is only really valuable when they are effectively exploited and used. Therefore, the concept of human resource development includes the factor of using human resource correctly, effectively, creating an appropriate and favorable working environment for each employee to be effective.

2.3 Requirements for Developing High Quality Human Resource to Meet the Targets of Industrialization and Modernization

Firstly, ensuring human resource development is one of three breakthroughs for industrialization and modernization, successfully implementing the goals set out in the socio-economic development strategy such as

transformation growth model from mainly in width to reasonable development between width and depth; enhance the application of science and technology; labor restructuring, economic restructuring, implementation of economic restructuring; rapidly increasing the content of localization, added value and competitiveness of products, enterprises and the economy; increase labor productivity, save in using all resources.

Secondly, the basic requirement of local is to develop sufficiently in terms of quantity, quality, and suitability in terms of the structure of high quality human resource to meet the targets of industrialization, modernization and social economic development. In order to ensure the successful implementation of this requirement, it is necessary to regularly follow the labor market needs, promptly grasp the changes in the industry structure and the training level of human resources to meet the requirements demand for labor restructuring of localities in the process of industrialization and modernization.

Thirdly, promoting the development of education and training, especially promoting vocational training for workers both in quantity and quality in order to improve incomes, living standards and contribute to economic restructuring, due to the increasing urbanization process, due to the emergence of new industries and trades ...

Fourthly, the development of human resource needs to meet the requirements of more balanced development among industries, manufacturing sectors as well as each region, stemming from the requirement to maintain political stability and ensure security, defense for national development.

Fifthly, developing high quality human resource in the locality must be associated with the exploitation, efficient use and saving of human resource, besides, on the one hand, creating opportunities for the economy to develop strongly, on the other hand, creating great pressure on employment and vocational training, towards labor restructuring, economic restructuring towards of industrial and modern.

2.4 Research Framework

The paper is carried on basing on a combination of both qualitative and quantitative research methods closely in the research process with the desire to not only describe the theoretical picture of the impact of developing high quality human resource to the targets of industrialization and modernization, but also quantify this impact through reliable statistics of Nam Dinh province. These methods include:

- Methods of scientific abstraction: Abstracting some important components of a phenomenon that has long been used in economic research. Because, within the scope of one study, it is impossible to address all the relevant issues, but can only focus on depth analyzing on a certain aspect. The paper applies this method to focus on analyzing the situation of developing high quality human resource in relation to the implementation of the targets of industrialization and modernization in Nam Dinh province.
- Descriptive and comparative statistical method: Analyzing the actual situation of developing high quality human resource to meet the industrialization and modernization targets of Nam Dinh province, comparing the level of developing quality human resource high with the requirements of industrialization and modernization in both theory and practice to see the suitability as a premise for a solution. Descriptive statistics provide preliminary results and provide qualitative assessments to identify the realization of theoretical relationships for human resource development in Nam Dinh province.

3. Case Study

3.1 Developing High Quality Human Resource to Meet the Targets of Industrialization and Modernization Cases in Nam Dinh Province, Vietnam Country

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3.1.1 Characteristics of Nam Dinh's Human Resource

Nam Dinh province is on the path of industrialization and modernization with an economy characterized by three intertwined civilizations: agricultural civilization, industrial civilization and some elements of knowledge civilization. In recent years, the general level of the labor force of the province continues to improve and the structure of human resources qualifications is also gradually improved.

Here are some indicators reflecting the size and structure of labor resources by 2019 criteria of Nam Dinh province as follows:

Table 1 Structure of Nam Dinh's Labor Resource by Qualification

No.	Criteria	Number (people)	Ratio (%)
1	Total	1,208,843	100.0%
2	No technical expertise	371,494	30.7%
3	Technical worker with Beginner's Degree/Vocational Certificate	591,315	48.9%
4	High school professional	128,552	10.6%
5	College — university or higher	117,481	9.7%

Source: Nam Dinh Statistical Office, 2019.

According to the statistical results in Table 1, the percentage of labor with a college degree or higher (human resources considered high quality human resources) of Nam Dinh province in 2019 is still quite low, this rate is only accounting for 9.7% of the total labor resources of the whole province, equivalent to 117,481 people. This rate is low but looking at the data table, we can see that the labor structure of Nam Dinh province by professional level is still very unbalanced, the labor force of the province is a technical worker at the level of a preliminary certificate. 48.9% of the total number of technicians and technicians with diplomas accounts for the highest percentage, the unskilled labor force (untrained) is still high (30.7%). Therefore, with the rate of labor according to the above qualifications, it is necessary for Nam Dinh province to strengthen the work of human resource development to ensure the level of labor resources, especially high quality labor source to meet targets of industrialization and modernization now.

Regarding the structure of Nam Dinh's labor resource by area in 2019, there are the following criterias:

Table 2 Labor Structure of Nam Dinh Province is Based on Economic Sectors

Labor structure Criteria	Total (people)	% in total labor of Nam Dinh province	% compared to the total labor force of the industry	% qualified labor	
	1,208,843			Professional and vocational high school	College — university or higher
Agriculture - Forestry - Fishery	510,132	42.3%	56.8%	9.7%	4.3%
- Male	153,040	31.8%	42.7%	48.4%	36.8%
- Female	357,092	69.2%	57.3%	51.6%	63.2%
Industry - Construction	424,304	35.1%	80.1%	7.8%	11.3%
- Male	360,658	84.9%	74.5%	92.7%	89.3%
- Female	63,646	15.1%	25.5%	6.8%	9.7%
Service	274,407	22.6%	75.7%	18.3%	15.6%
- Male	115,251	41.5%	37.7%	36.5%	45.6%
- Female	159,156	58.5%	62.3%	63.5%	54.4%

Source: Nam Dinh Statistical Office, 2019.

According to the labor statistics by economic sectors in Table 2, we see that, in Nam Dinh province, in 2019, the total number of employees is 1,208,843 people, the ratio of employees in Agriculture - Forestry - Fisheries accounts for 42.3%, equivalent to 510,132 people, with the labor structure with college, university or higher degrees, accounting for a very low rate, only 4.3% of the total number of employees in the sector; The labor structure of Industry and Construction accounts for 35.1%, equivalent to 424,304 people, of which, 11.3% of the labor force of the sectors and fields have college and university degrees study or higher; similar to the field of Services, the labor structure of the field is 22.6%, with 274,407 people in the province's total labor force, with the proportion of employees with college, university or higher account for 15.6%. Thus, although in recent years, the high quality labor force in Nam Dinh has tended to increase, the labor structure by industry has changed positively, reducing the proportion of labor in the agricultural sector. forestry, fishery, increase labor force in industry, construction and service sectors. However, the structure of labor sources with college and university degrees or higher is still quite low, the labor structure distributed among industries is still inadequate, the labor structure by gender is still inadequate due to the gender imbalance in occupations is still high, such as agriculture, which is performed by almost female employees, while in industry, construction, which is performed by almost male labor. With the current labor force of the province is abundant, but the quality is limited, unskilled labor accounts for a large proportion, technical and professional labor is insufficient compared to the requirements of socio-economic development. This requires Nam Dinh province, its labor management agencies to have strategies in developing their local human resource to ensure the socio-economic construction and development of Nam Dinh province in the direction of industry and modernity.

3.1.2 Developing High Quality Human Resource in Nam Dinh

The impact of the industrial revolution 4.0 greatly affects the whole human resource of the country as well as Nam Dinh province, especially the threat of heavy unemployment in the unskilled labor resource. Therefore, developing high quality human resource to meet targets of industrialization and modernization in Nam Dinh province needs to develop in two spearhead directions and broadly, specifically:

- Education level: Nam Dinh province needs to make efforts to 2020, the province's labor force ensures the rate of primary school graduates less than 5%; primary school graduates accounted for 8%; 35% graduated from lower secondary school and 52% high school graduate. In 2019, this rate is 7%; twelfth%; 33%; 48%.
- Professional and technical qualifications: In 2020, Nam Dinh province strives to reduce the proportion of short-term trained workers to 35%, to train intermediate-level laborers to 8.5% and to college-level up 16.5%; university and higher accounting for 13.5%.
- Vocational training: Nam Dinh makes efforts to 2020, raising the rate of trained vocational workers to over 60% (42.8% in 2019). Promote rural economic restructuring towards increasing the proportion of industry and services (industry and construction increased from 52% in 2019 to 68%; services increased from 36% in 2019 to 35%); to reduce the proportion of agriculture to 15% by 2020. Through vocational training activities, creating qualified human resources and vocational skills to meet the labor needs of units and enterprises and is one of the weak factors. An important factor promoting socio-economic development of the province.
- For the contingent of cadres, civil servants and public employees of the province: To enhance the thoroughness and consideration of both material and spiritual matters for training occupational skills and other qualities of officials and public employees officials. By 2020, the total number of officials,

public servants and employees will be about 23,000 people, of which post-graduate accounts for 20%, college and university degrees account for 75%; By 2030, the corresponding rates will be over 35% and 65%.

- For the private sector: In 2019, the whole province has 1,208,843 employees with aged 15 and over, of which trained workers account for 69.3%. It is expected that by 2020, the proportion of trained workers will account for 23.0%, the proportion of workers with college and university degrees will account for 20.3% of the total labor; labor with university degree an higher accounts for 13%.

To implement this orientation, Nam Dinh province also proposed a direction to improve the quality of vocational educators to meet and exceed the standards of professional qualifications, pedagogical skills and vocational skills, in accordance with structure of training disciplines, of which 50% of teachers at college and secondary education have graduate degrees. To strive for the target that the percentage of labor through job-based vocational education up to 70% by 2020 and 85% or more by 2030. In the period from now to 2030, to build some schools in the vocational education system up to international standards. In addition, the province needs to develop and organize the implementation of appropriate policies and mechanisms for the development of human resources quality, including contents on the working environment, employment policies, income, favorable and attractive living conditions and policies for high quality human resource to meet local socio-economic growth.

3.1.3 Some Limitations of the Development of High Quality Human Resource in Nam Dinh

Firstly, the percentage of trained labor has increased, but unemployment has tended to increase over the years. The reason is that the quality of human resource training is not really high, many workers after the training are not able to immediately perform the job, including some workers need to retrain or additional training to suit with the requirements of industrial and modern jobs at the workplace. There is a shortage of trained technical workers, especially workers in high-tech fields such as electricity, electronics, mechanics, new materials.

Secondly, in the training and education, the structure of training fields has not met the social needs. Most vocational schools and universities are training for industries following social trends such as economics, finance, banking, law, accounting, etc., not yet prioritizing investment in training human resource for the industry and service sectors or for industrialization and modernization of the agricultural sector. In addition, the gender imbalance of the labor force in Nam Dinh province is also a matter of concern, especially in the agriculture-forestry-fishery sector, the majority of female workers account for the majority.

Thirdly, policies and regimes in economic integration and venture to develop human resource for the purpose of industrialization and modernization of Nam Dinh province are still limited: The mechanism of joint venture, cooperation and coordination in training and education in and outside Nam Dinh is not yet popular. Enterprises and organizations still mainly use available labor, have not paid enough attention to the development high quality human resource for future personnel requirements.

Fourthly, the issue of attracting investment, accumulating capital and finance for human resource development in Nam Dinh province is not good. The province's labor force is currently exploited by employers, mainly exploiting the quality potential, the number of available human resources, and not paying adequate attention to financial investment for labor development (quantity, quality, struture). Besides, Nam Dinh province's budget revenue is still low, not yet to meet the demand for investment in material facilities, teaching and retraining equipment, and developing high quality human resource for industrialization and modernization of the province.

Fifthly, the development of human resource for industrialization and modernization of Nam Dinh province is a fact that for a long time, the planning and developing of human resource of Nam Dinh province has not been

much considered yet, the province has not developed a detailed plan for human resource development strategy for the period 2011-2020. Therefore, the implementation of plans for education, training, retraining and human resource development become very difficult and inadequate, so it has not been able to take initiative in human resource for arranging, replacing and supplementing and make many occupations that are labor-shortage, while some areas such as agriculture, forestry and fishery are redundant labor.

3.2 Solutions for Developing High Quality Human Resource for Nam Dinh Province

3.2.1 Nam Dinh Province is Proactive in International Economic Integration to Develop High Quality Human Resource for Industrialization and Modernization

Nam Dinh province has the advantage of abundant human resource, with large number of vocationally trained labor force, but the labor force with professional qualifications and high quality is still limited. The labor force still has an imbalance between industries and fields, as well as an imbalance in gender, skills of human resource are not good... this problem really becomes a big barrier in the process of industrialization and modernization of the province. Therefore, in the coming time, Nam Dinh province should implement the following directions:

Promoting of information and communication to the people, officials and workers so that they understand the policy of international integration of the province in order to take advantage of all resources for socio-economic development, especially investment capital for training and vocational education for the development of high quality human resource in the province.

All higher education institutions, vocational education institutions should make recommendations to the province in formulating and promulgating policies in education and training, vocational education to create a clear and favorable mechanism for countries, investors and businesses to increase investment in capital and technology to use and develop high quality human resource to meet requirements of economic investment's demand of all three parties of investors, Nam Dinh province and workers.

Universities and colleges in Nam Dinh need to promote cooperation, joint venture and cooperation with domestic and international universities in order to take advantage of capital, technology and advanced teaching methods, step by step participate in training human resource, including those who meet full of criteria: quantity, quality and the structure to meet the industrialization and modernization requirements of Nam Dinh.

3.2.2 Promote Economic Development, Increase Capital Investment for Developing High Quality Human Resource of Nam Dinh Province

In the process of implementing Nam Dinh's human resource development strategy for the period of 2011-2020, from the requirements of human resource to meet the targets of industrialization and modernization, Nam Dinh province has achieved many great achievements in socio-economic development such as the annual average economic growth rate reached 9.2%, the unemployment rate decreased significantly; the economic structure of the province shifted in a positive direction, although the economic structure of Nam Dinh province in the fields of agriculture, forestry and fishery still accounts for a large proportion (42.3%), but the service and industry sectors, construction has been increasing significantly in recent years. However, in general, Nam Dinh is a rapidly aging and sustainable province, the economic growth rate is still low, the unemployment rate is low but lack of job is big, industry and services although have achieved many prosperous results but still not creating a breakthrough, low labor productivity and low economic efficiency. Therefore, it affects the accumulation and investment for developing high quality human resource of Nam Dinh province.

To ensure to have enough of quantity, quality and structure of human resource to meet the targets of industrialization and modernization of Nam Dinh province, the province needs to focus on attracting capital to invest in training, education and development of human resource, especially for high quality human resource. Accelerating the transformation and completion of the economic structure in the direction of industry and modernity, including the main field of agriculture and forestry to create a solid premise with a medium-term strategic vision to get accumulated capital from the agricultural sector, forestry, fisheries for investing for developing high quantity human resource for industry, construction and service sectors.

3.3.3 Implementing Human Resource Development Plans for Industrialization and Modernization of Nam Dinh

In order to improve the efficiency and quality of human resource development to meet the industrialization and modernization targets of Nam Dinh province, an important solution is that the province must develop a plan for developing high quality human resource to meet the requirements in the new, integrated, industrial and modern period with specific directions in:

Planning for developing human resource, especially high quality human resource of the province until 2025. The province needs to assess the actual situation of the ability to provide human resource and forecast the demand off high quality human resource in the way of modern, industry, from there, if there is a surplus or shortage, it is necessary to adjust and transliterate the labor structure accordingly, effectively to ensure socio-economic development plan, meeting the targets of industrialization and modernization of Nam Dinh.

The province must have a breakthrough plan to develop high quality human resource, with a focus on building, fostering and using appropriately qualified leaders and managers with good ethics, improving the quality and efficiency of using science and technology staff, training technical workers in the direction of developing a system of universities and vocational training schools that are widely available. policies to encourage localities, investors, enterprises to invest or directly participate in vocational training for labor staff in the province.

For education, training and development of high quality human resource: The province should pay attention to training programs for high quality human resources towards focusing on training according to standards of professional titles; each job title and position is trained and fostered with appropriate and practical knowledge and skills for the work being undertaken by the employee. It also needs to balance the funding for training, fostering and developing high quality human resource to meet the targets of industrialization and modernization.

4. Conclusion

Human resource is the most important resources, determining the existence and development of local and national. But to have high quality human resource to meet the targets of industrialization and modernization. It requires Nam Dinh to have important solutions to carry out this political task. Developing high quality human resource of Nam Dinh province in the period of industrial revolution 4.0 is now an important human resource strategy to contribute for improving the quality of the local labor force in particular of Nam Dinh and of Vietnam in general, contributing to economic restructuring, labor restructuring towards industry and modernity for socio-economic growth and development of Nam Dinh province.

References

Communist Party of Vietnam (2011). *Documents of the Eleventh National Party Congress*, National Political Publishing House, Hanoi.
Nam Dinh Committee. "Socio-Economic Development Strategy in Nam Dinh 2011-2020".

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Modernization of Nam Dinh Province**

Nam Dinh Committee. "Human resource development plan of Nam Dinh 2011-2020".

Nguyen Chi Tan, Tran Mai Uoc and Nguyen Van Phuc (2011). "Human resource of high quality with the cause of industrialization and modernization", *Journal of Human Resources Development*, Vol. 24, No. 3.

Ngo Minh Tuan (2013). "State management of human resource development in Vietnam: issues and solutions", Ministry of Planning and Investment.