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Developing High-Quality Human Resources in a Knowledge-Based Economy: A Study in Ho Chi Minh City, Vietnam

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Abstract

For decades, Vietnam has been concerned about the need to improve human capital to meet the demands of a knowledge-based economy. The analysis of the country's current situation of human resources in terms of structure, quantity, and the quality shows that Vietnam's human resources are under-qualified compared with other countries in Southeast Asia, such as Thailand, Malaysia, and Singapore. This poses significant challenges to the economy because the development of human resources is always an urgent requirement for a new economy with fast growth, like in the Vietnamese economy. To attract foreign investment capital and develop more strongly, human resources in Vietnam must have progressed in both quality and quantity. Therefore, the author conducts this study to find out the factors that directly affect the quality of human resources, thereby evaluating and offering appropriate solutions to improve the quality of current human resources in Vietnam. More specifically, through quantitative analysis and survey with data about 4000 employees in Ho Chi Minh City, the author has discovered that there are four important factors that make the difference in labor quality, which are age, gender, marital status, and education level of the workers.

Keywords: Human Resource, Human Capital Quality, Knowledge-Based Economy, Vietnam

JEL Classification Code: J21, J24, J80

1. Introduction

Until now, human resources are not only the core of any organization but also the backbone of a country. Because human resources are an irreplaceable resource that helps to create, maintain, develop and preserve the national economy (Altinok, 2007; Arora et al., 2000). With the continuous development of the economy, the demand for human resources in general and high-quality human resources, in particular, is extremely large and urgent, especially for the knowledge-based economy (Barro, 2001; Bou & Beltrán, 2005; Bawono, 2021). To operate and survive in the knowledge economy, people must master science and technology because science

and technology are the keys to making a difference in the knowledge economy - where the achievements of the four industrial revolutions radically change many knowledge-based industries such as information technology (Benjamin, 2014; Sulaiman et al., 2021). The trend of applying science and technology to production and business will become inevitable in the near future (Abrahams, 2010). At that time, it is obvious that the higher the intellectual requirements of the industries, the more suitable and appropriate quality human resources are needed (Boden & Miles, 2000). Therefore, investing in human resources is an inevitable investment that not only every business must pay attention to but also the whole country. Developing human resources and high-quality human resources will be a key requirement for moving toward the knowledge economy (Altinok, 2007; Arora et al., 2000; Bou & Beltrán, 2005).

To assess human resources, it is really essential to look at the quantity, structure, and quality of human capital. In terms of quantity, according to data from the Institute of Development Research of Ho Chi Minh City. Currently, the supply of labor in Vietnam is abundant and larger than the demand for labor (Do et al., 2020). However, most of this

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labor supply is unskilled. Besides, according to the statistics of the General Department of Vocational Education in 2018, the percentage of trained workers in our country is too low (21.9%), while the rate of workers without technical expertise is too low, account for a very high percentage of the total. At present, looking at the overall picture of the country, the number of leading scientists and experts in various fields is still small, not meeting the requirements and requirements of the country in the new period (Binh, 2021; Kamoche, 2001).

In terms of structure, high-quality human resources in our country are not distributed rationally: more than 92% of cadres with doctorate degrees or higher are concentrated in Hanoi and Ho Chi Minh City. By contrast, this rate in rural areas such as the Central Highlands, the Northwest, and the South, is less than 1%, causing an imbalance in the overall development of the country (Do et al., 2019; Kamoche, 2001). Besides, in terms of economic sectors, in the agricultural sector (which attracts more than 40% of laborers in the economy), the proportion of workers with a degree only accounts for 6% of the total number of workers (equivalent to about 4.2% of the workforce in this field). The number of workers with degrees is concentrated in the service sector (more than 70%), while the number of workers working in the service sector accounts for only 34%. The proportion of workers with degrees and certificates in the industry accounts for about 20% of the total number of workers with degrees and certificates in the economy (Do et al., 2019). This shows a rather large imbalance in the proportion of workers by degree across economic sectors. With a very low percentage of workers with technical expertise in the agricultural sector, it has been posing great challenges in improving labor productivity as well as the industry's competitiveness in the context of the industrial revolution 4.0 has taken place on a large scale (Nguyen et al., 2019; Thi Hoa, 2020).

In terms of quality, in the 2018 Global Competitiveness Index (GCI) 4.0 report, the assessment of Vietnamese workers' skills ranks only 97th out of 140 countries, the education level of the labor force ranks 98th; the quality of vocational training is underestimated, ranked at 115; skills of students, graduates are 128; the ease of finding skilled workers in the Vietnamese market ranks 104th (King-Kuanui et al., 2006; Nguyen et al., 2019). Although Vietnam's average number of schooling is 7.6 years, much higher than Cambodia's average of 4 years of education, the skill indexes of Vietnam's labor force are only equivalent to that of this country and lower than those of other countries in the region. These figures reflect the fact that the quality of Vietnam's human resources is low compared to the world and is a hindrance to economic growth (King-Kuanui et al., 2006; T. V. Nguyen & Bryant, 2004).

These numbers indicate the importance and urgency of this study. The study aims to understand and analyze the factors that directly affect human resources in Ho Chi Minh

City, thereby proposing solutions to overcome this situation. Therefore, the author carried out the study "Developing high-quality human resources to meet the requirements of the knowledge economy in Ho Chi Minh City".

2. Literature Review

There are different views on the term "knowledge-based economy", but generally, a prerequisite feature of all knowledge economies is the intense and high-frequency application of gray matter to all activities from production to service provision (Boden & Miles, 2000; Chulanova et al., 2019). Towards a knowledge-based economy is to aim for a civilized age in which knowledge becomes a "special commodity", the premise, basis, and driving force for all economic activities. Since then, knowledge, skills, and attitudes are decisive factors in promoting social production (Cooke & Leydesdorff, 2006). And so, people are the key, the very important center promoting the process of building a knowledge economy of a country (Dosi, 2009; Dunning, 2000; Foray & Lundvall, 2009).

In the knowledge economy, high-quality resources are the foundation of change in organizations. Many researchers believe owning high-quality resources is a stable, easy-to-use competitive advantage. most accessible and cost-effective. To put it more precisely, high-quality human resources with knowledge-based capabilities are the key to the competitive advantage that differentiates one organization from another, one country from another. Because, in the knowledge-based economy, cost competitiveness is a necessary but no longer a sufficient condition for success. Therefore, instead of focusing only on cost reduction, businesses and organizations need to add value by improving the quality of human resources.

Developing high-quality human resources, therefore, has become the concern of all countries in the process of economic development, especially in the era of forming a knowledge-based economy, when human resources are of particular importance in enhancing a country's competitiveness and individual enterprise. The wake-up call about the quality of human resources shows that international integration poses many challenges for the country, in which the challenge of human resource quality is very important and needs attention. In this thesis, the author will systematically approach basic theoretical issues such as concept, role, influencing factors, meaning, and decisive importance of human resources and develop high-quality human resources from different angles.

In Vietnam, building a knowledge economy is an important task and a top goal of every country, especially developing countries. Of course, Vietnam cannot be out of that trend. However, according to the International Labor Organization (ILO), Vietnam is facing many challenges in terms of the quality of human resources, such as low professional and

technical qualifications of workers, with labor productivity reaching only 1/18 compared to Singaporeans, 1/16 compared to Malaysians, and 1/3 compared to Thais. At its peak, according to some recent studies, the labor productivity of Vietnamese people reached 60.73 million Vietnam Dong, the lowest in Indochina, lower than both Laos and Cambodia (Altinok, 2007; Nguyen et al., 2019). With such a situation, a wake-up call should be sounded with focus on building high-quality human resources in line with the requirements of the knowledge-based economy (Foray & Lundvall, 2009).

From the need to improve capacity as well as upgrade high-quality human resources, there are a lot of research works that delve into the analysis, assessment of the current situation, and the contribution of human resources to the process. Socio-economic development in countries around the world (Do et al., 2019; Foray & Lundvall, 2009; Nguyen & Bryant, 2004). Most of them have provided a system of different criteria to identify and clarify high-quality resources; or analyze factors and conditions that affect the development of high-quality human resources, such as employment policies, policies on attraction, remuneration, training and retraining policies, working environment, etc. Since then, these studies have given the tasks, solutions, and proposals to develop and promote the role of high-quality human resources in the sustainable development of countries (Nguyen et al., 2019). From these studies, applications to improve high-quality human resources and develop these resources based on a general theoretical foundation considering the country's specifics have begun to be put into practice with a certain number of achievements (Binh, 2021; Dosi, 2009).

However, the existing studies still have not reached a consensus when discussing this issue, creating controversy in the use of different terms regarding high-quality human resources (King-Kauanui et al., 2006; Nguyen et al., 2019). On the one hand, the diversity of perspectives helps readers have an overview of high-quality human resources. On the other hand, the diversity of research perspectives requires learners to have distillation and critical thinking to choose the right perspective for each context and situation. In short, the basic spirit emerging from the above works is the requirement that people change their thinking to adapt and master the trends of knowledge economy development in the current period (Arora et al., 2000; Bou & Beltrán, 2005). The second research gap in previous research papers lies in research results. While some studies have focused on developed regions such as Europe or the United States, a minimal number of studies have been conducted in Vietnam (Arora et al., 2000; Nguyen et al., 2019). The results of these studies are also heterogeneous due to differences in research samples and methods. Therefore, this study uses mixed research methods, including qualitative and quantitative,

with an extensive sample survey to assess the quality of human resources in Vietnam today.

3. Methodology

3.1. Data Collection

In this study, the author chose to send survey questions to about 4000 employees in Ho Chi Minh City, who are in three types of enterprises (state-owned enterprises, foreign enterprises, and enterprises), domestic private sector). In addition, the author also identifies a group of workers with lower and unequal qualifications who are identified as self-employed, such as retail business, real estate business, or stock investment. For the survey, a 5-level Likert-scale scale is applied because of the significant advantages of this method in assessing research problems. Many erudite researchers in the social field agree that this scale is highly effective, easy to understand, and especially optimal in analyzing factors related to human factors.

The study sample was selected by convenience sampling method. Information on the research sample was collected by a large-scale survey technique, which was conducted in two forms, a direct survey or an online survey. More specifically, the author will do a direct survey on a high-quality workforce working in enterprises in Ho Chi Minh City from 01–03 years after graduation. In a second way, the author will send survey questions via email to employees who find it difficult to arrange a suitable time and place. Survey questions ensure the correct principles of information security for these employees. All survey information is guaranteed that it is for research purposes only and is not used in any other form of commercialization.

After sending 4000 online surveys to businesses in the city, the author received 3,685 responses, accounting for 97.125%. In these feedback sheets, the author excludes some unreliable observations when selecting only one option or not filling in all the information. After this step, only 3658 responses were recorded as having sufficient reliability and matching the study requirements. By type of business, there are 762 employees working in state-owned enterprises (accounting for 21% of the total number of survey respondents), 419 employees working in foreign enterprises (accounting for 11%), 1392 employees working in domestic private enterprises (38%), and 1,085 freelancers (accounting for 30%) participated in this survey.

In terms of gender, out of a total of 3658 workers who participated in the survey, 2592 were female, accounting for 71% of the weight. 986 workers participating in the survey are men, accounting for 27%. The rest are non-binary or third-sex people, representing 2% of the total number of workers participating in this survey.

3.2. Empirical Model

$$\begin{aligned} QUA &= \alpha + \beta_1 \times \text{Age} + \beta_2 \times \text{Gender} + \beta_3 \times \text{STA} + \beta_4 \times \\ &\quad \text{ARE} + \beta_5 \times \text{Income} + \beta_6 \times \text{EDU} + u \end{aligned}$$

In which α is the intercept; β is the coefficient, and u is the error (Table 1).

3.3. Hypotheses

Based on many previous studies, the authors suggest that while the people of Generation X often have good work experience and problem-solving ability, the young workers of Generation Y and Z now have the ability to analyze and apply technology to jobs better (Altinok, 2007; Do et al., 2019). They are also people who are highly adaptable to changes in work and have better foreign language and computer skills than older people. Therefore, the age difference will make a big difference in working style and efficiency, thereby determining labor productivity (Arshad & Ab Malik, 2015).

H1: There is a difference in the quality of labor for people of different age groups.

Gender is also a demographic factor variable that is of great interest today when many research articles in psychology and medicine have shown the strengths and weaknesses of each

gender (Akdere, 2009; Altinok & Murseli, 2007). While men are said to have better mental abilities and health, women are said to have greater sophistication and ingenuity at work. Therefore, the quality of work for the two different sexes also becomes different (Balcerzak, 2016).

H2: Labor quality varies between the genders

Marital status is said to be an important factor in determining job performance because it greatly determines the emotional health of employees (Balcerzak, 2016). People with families, besides time spent at work, have obligations to their families as well as they should find time for social relationships (Akdere, 2009; Altinok & Murseli, 2007; Binh, 2021). Therefore, there are many differences in working style and duration for married and unmarried people.

H3: Marital status does affect labor quality.

The income of workers, of course, significantly impacts the quality and productivity of their labor. Several previous studies have shown that people with high incomes are often more productive than those with low incomes (Do et al., 2019; Nguyen et al., 2019).

H4: Income has an impact on the quality of human resources.

Table 1: List of Variables

Variables	Meaning	Role	Measurement	Model
Age	Age	Independent variable	Age	AGE
Gender	Gender	Independent variable	Male	GENDER
			Female	
STA	Marital status	Independent variable	Single	STA1
			Married	STA2
ARE	Residential area	Independent variable	Rural area	RA1
			Small city	RA2
			Big city	KVS3
Income	Income	Independent variable	Income	Income
EDU	Education background	Independent variable	Primary school	EDU1
			Secondary school	EDU2
			High school	EDU3
			Undergraduate	EDU4
			Post-graduate	EDU5
QUA	Human capital quality	Dependent variable	Knowledge	QUA1
			Skills	QUA2
			Attitude	QUA3

It is quite understandable when many studies show that the education level of workers has a great impact on the quality of their work (Arshad & Ab Malik, 2015; Aryee et al., 2016). Usually, people with a high level of education are often well-trained, so they have better knowledge and job skills than untrained workers.

H5: *The level of education of workers has an impact on the quality of labor.*

4. Results

4.1. Descriptive Statistics

Table 2 presents the assessment of labor supply knowledge in Ho Chi Minh City for 3658 surveyed workers, belonging to 5 different generations from Generation Z to Boomers I. The knowledge of workers depends on the qualifications, background knowledge, and qualifications of the workers participating in the survey. The knowledge of workers is divided into five levels from low to high: weak, average, good, and excellent. Considering the total number of survey participants, there are 323 people with a low level of knowledge capacity, accounting for 9%. In addition, there are 499 workers with a medium capacity, accounting for 14%. Thus, the majority of workers in the City have a good level of knowledge (accounting for 46%), followed by a reasonable level, accounting for 22%. The number of workers with excellent qualifications accounts for only 9% of the total number of respondents.

Looking at each generation, we see the disparity in knowledge between different generations. In Generation Z, 49% of workers are well-educated, 20% of workers are well-educated, and only 10% of workers between the ages of 15 and 25 have excellent qualifications. Meanwhile, in Generation Y, 25% of workers have weak or moderate qualifications. The vast majority of workers in Generation Y have good qualifications (accounting for 55%), and the remaining

20% of workers have a good or higher level of knowledge. Generation X has a completely different distribution of labor qualifications compared to other generations when the number of workers with excellent qualifications is very small, accounting for only 4% of the total number of workers in this generation. Meanwhile, people in Generation X are mostly well-educated (with 44% and 29%, respectively). With the Boomers II generation, 73% of the survey respondents in this generation were rated as having a fairly good level, and only 8% of the survey respondents in the Boomers II generation achieved an excellent level.

Meanwhile, in the generation of Boomers I, 48% of the survey participants were rated as having a good or higher level (of which 30% were rated as having good knowledge, and 18% of the respondents were rated as having excellent knowledge). This is the highest number among all five generations. Thus, with long-term accumulated experience and a good grasp of practical expertise, Generation Z and Generation Boomers I are showing outstanding advantages in holding the proportion of qualified workers. This is completely understandable because Gen Z is the youngest generation with the highest and most modern exposure to knowledge. At the same time, the Boomers, if they are still working, often keep very high positions in corporations or government apparatus, possessing profound knowledge and skills through a long period of accumulated experience.

The second aspect that needs to be considered when assessing the quality of the workforce is the skills of the workers. Based on the studies of Altinok and Murseli (2007) and Aryee et al. (2016) on human resources in multi-developed countries, to enhance and develop human resources High-quality human resources, besides improving professional knowledge, the workforce is required to improve working skills including hard skills and soft skills. More specifically, these studies also indicate hard skills, technical skills at work, and soft skills such as English skills, computer skills, and communication skills, teamwork, and leadership skills (Nguyen & Bryant, 2004).

Table 2: Knowledge Assessment of Labor in Ho Chi Minh City

Knowledge	Gen Z		Gen Y		Gen X		Boomers II		Boomers I		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Very bad	55	5%	128	13%	53	12%	41	8%	46	9%	323	9%
Bad	184	16%	123	12%	50	11%	62	12%	80	16%	499	14%
Good	580	49%	560	55%	196	44%	211	41%	140	28%	1687	46%
Very good	236	20%	137	14%	126	29%	164	32%	152	30%	815	22%
Excellent	122	10%	64	6%	17	4%	42	8%	89	18%	334	9%
Total	1177	32%	1012	28%	442	12%	520	14%	507	14%	3658	100%

The aggregate scores of Table 3 show the composite scores of skills across five age groups: Generation Z, Generation Y, Generation X, Boomers II, and Boomers I. Of 3658 people surveyed, only 1% of the workforce was assessed as having excellent work skills, which is a very modest number and needs to be improved in future. In addition, 8% of the survey workers are assessed as having good skills, 17% of the survey respondents are evaluated as having good skills, and the remaining 75% are of average or weak skills. This is an alarming number about the quality of human resources in Ho Chi Minh City.

Looking at each generation, it is clear that the common level of skills between generations is quite different, but one thing in common is that very few people have good or excellent skills. Specifically, in Generation Z, 10% of survey respondents belonging to this generation have good or higher skills (of which only 5 people out of 1177 employees of Generation Z think that they have excellent skills). In contrast, up to 78% of survey respondents belong to Generation Z; they have average or weak skills. This is alarming but quite understandable because Generation Z is students or young workers who have just graduated from school and do not have enough work experience and skills. It would help if you had time, experience, and participation in training processes to practice communication, teamwork, and leadership skills. As for millennials, 24% of survey respondents in the age group of 26 to 40 say they have good or good skills, and almost no one has excellent skills in this age group. It proves that even though millennials have more experience and working hours, their skills still need to be improved. Because to comprehensively assess the skills of workers, we must look at both hard and soft skills. The weakness of Generation Y is their English skills. Most interviewees said they are not confident about their English ability and need to improve in the future.

4.2. Regression Analysis

The results of the correlation regression analysis between the independent and dependent variables included in the model are presented in Table 4 below.

$$\begin{aligned} \text{QUA} = & \alpha + \beta_1 \times \text{Age} + \beta_2 \times \text{Gender} + \beta_3 \times \text{STA} + \beta_4 \times \\ & \text{ARE} + \beta_5 \times \text{Income} + \beta_6 \times \text{EDU} + u \end{aligned}$$

The results of the correlation regression analysis show that the change of the dependent variable QUA is explained by 63.23% of the change of the independent variables. Besides, the multivariable regression model also shows that out of 6 independent variables, only 4 variables have a strong impact on the dependent variable; These variables include Age, Gender, STA, and Edu. Meanwhile, ARE, and Income has no significant impact on the dependent variable QUA.

Analyzing the direction of the impact of each independent variable on the dependent variable QUA, we find that while Age and Gender have a negative effect, STA and Edu have a positive effect on the dependent variable. This means that the higher the worker's age, the better the quality of his work. Second, in terms of gender, because beta (gender) = -0.19, women often perform better at work than men. Third, regarding marital status, because beta (STA) = 0.208, married people often have better labor results than unmarried people. Finally, regarding educational status, because beta (Edu) = 0.397, it can be assumed with 95% confidence that people with good educational status are more likely to work and have better job performance than those without a good education.

5. Discussion and Conclusion

Thus, the study has demonstrated the close relationship between age, gender, marital status, and education on

Table 3: Skills Assessment of Labor Supply in Ho Chi Minh City

Skills	Gen Z		Gen Y		Gen X		Boomers II		Boomers I		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Very bad	359	31%	291	29%	176	40%	178	34%	153	30%	1157	32%
Bad	553	47%	473	47%	177	40%	205	39%	169	33%	1577	43%
Good	141	12%	217	21%	60	14%	116	22%	82	16%	616	17%
Very good	119	10%	30	3%	20	5%	13	3%	101	20%	283	8%
Excellent	5	0%	1	0%	9	2%	8	2%	2	0%	25	1%
Total	1177	32%	1012	28%	442	12%	520	14%	507	14%	3658	100%

Table 4: Regression Analysis

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	0.345	0.341		5.223	0		
	Age	-0.384	0.199	-0.214	-2.378	0.001	0.893	1.293
	Gender	-0.397	0.097	-0.19	-3.579	0.001	0.920	1.491
	STA	0.428	0.022	0.208	4.144	0.000	0.682	1.224
	ARE	0.398	0.131	0.037	0.671	0.503	0.927	1.394
	Income	0.048	0.083	0.120	0.678	0.304	0.823	1.392
	Edu	0.58	0.002	0.397	6.283	0.000	0.668	1.129

productivity and labor efficiency of workers in Ho Chi Minh City. To improve the current quality of human resources to meet the needs set out in the knowledge economy, the City should focus on synchronizing management capacity at all levels in education and career guidance. This is the first and most important solution because the change needs to take place from root to tip, and educational authorities in the City need to update as well as change their vision and mission in bringing about the change. Education and training associated with the practice. Bringing the development of high-quality human resources to meet the needs of the knowledge economy is the most urgent task to serve the economy, catch up and lead the economy. Because human resources are always defined as the most important factor and determine the success or failure of an economy and politics of the country. Therefore, the completion of the planning and development of vocational education in the city focus on investing in and improving the quality of schools selected for high-quality schools, schools with key occupations and associated with key occupations. in the coming time, such as Information Technology - Communication - Artificial Intelligence, Automation - Robot, Healthcare, Corporate Administration, Finance - Banking and Tourism.

It can be said that success or failure, making good use of opportunities, or overcoming risks and challenges from the industrial revolution 4.0 in Vietnam today depends decisively on the development of high-quality human resources. Mr. Le Minh Tan, Director of the City Department of Labor, Invalids and Social Affairs. According to Ho Chi Minh City, the city creates jobs for 295,805 workers on average every year, and the number of new jobs is 124,249 seats. The unemployment rate decreased from 2016 respectively: 4.4%; estimated 2019: 3.7%; 2020: below 3.7%, exceeding the target assigned by the Resolution of the City Party Congress, term

X. Specifically, from the beginning of 2019 until now, the City Employment Service Center. Ho Chi Minh introduced jobs to 127,867/155,000 people (reaching 82.49% of the year plan). The number of demobilized soldiers who received jobs by the end of August was 480 people.

Research, apply and coordinate with international accrediting organizations to save quality, especially in key occupations in vocational education institutions. Develop and promulgate policies to support, call for investment, and attract talents to work in vocational education (Cowling & Newman, 1995). At the same time, it was implementing the assignment of full autonomy in accordance with the law to promote scientific research and increase the city's labor productivity. Focus on facilitating the work of "Dual training", gradually narrowing the gap between training and employing workers, forming thinking and a sense of entrepreneurship for students after vocational training. Improve the quality of management staff and teachers in vocational education institutions; regularly organize training classes, fostering professional knowledge, pedagogy, informatics, and foreign languages. Negotiate, cooperate and transfer advanced training programs to countries in the region and the world. Completing the self-assessment of the quality of training programs as a basis for accrediting training quality. Currently, the work of improvement and self-assessment is still at a low level in educational institutions, especially vocational training centers. To be able to perfect the assessment and management system, it is imperative that the governing body directly responsible for the education and training of the city upgrade and synchronize accordingly to keep up with the development of the city.

In the current era of modernization and industrialization, science and technology have completely changed the economy, politics, and culture of a country. Ho Chi Minh

City is currently an economic-political-cultural center contributing the largest source of GDP in the provinces and cities. This proves the outstanding development and potential of the city in the near future when foreign exchange and foreign investment flows continuously flow into the city. Therefore, the demand for human resources, especially high-quality human resources, poses an urgent problem for the management system at all levels. Therefore, what needs to be done right in the coming period is to synchronize and self-improve the management capacity of the educational management agency to institutionalize and reform the head office, and directly regulate the supply of education and training – the current human demand of the city. Only then will the problem of supply-demand imbalance gradually find a solution through appropriate adjustment directions and policies.

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