

# Factors Affecting Training for High Quality Human Resources at Thai Nguyen University

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## ABSTRACT

*The objective of this study is to identify the factors affecting the training of high quality human resources at Thai Nguyen University. Data used in the study was collected from the results of a survey of 120 students from different subjects of Thai Nguyen University. Data were processed by SPSS 20.0 statistical software, tested with Cronbachs's Alpha coefficient, exploratory factor analysis model (EFA) and linear regression analysis model. The research results show that the factors affecting the training of high quality human resources at Thai Nguyen University include "Determining training needs", "Training programs", "Training Methods", "Teaching staff", "Facilities". In particular, "Training Programs" is the most influential factor in the training of high quality human resources at Thai Nguyen University.*

**Keywords:** The factors affecting, the training, high quality human resources.

## I. ASK THE PROBLEM

In recent years, Thai Nguyen University has continuously improved its training activities for high-quality human resources, in which it has paid great attention to the improvement of training programs, raising the qualifications of lecturers, and innovation. teaching methods, improving facilities. In order to have a scientific basis to improve the quality of training, the school has collected information through the evaluation of teaching quality from learners, teachers, employers as well as leading experts. However, this result only reflects in general, has not studied deeply and fully assessed the factors affecting the training activities of high-quality human resources of the university. Therefore, the author conducted a study on "Factors affecting the training of high-quality human resources at Thai Nguyen University" in order to provide the University with an effective scientific basis for the work. improve the quality of training, meet the training needs of the industry.

## II. RESEARCH METHODS

The research was conducted through 2 steps [4], [5]: - Step 1: Conduct qualitative research by building and developing a system of concepts/scales and observed variables and correcting observed variables in accordance with reality. - Step 2: Quantitative research, using Cronbachs' Alpha reliability coefficient to test the degree of closeness that the items in the scale correlate with each other; exploratory factor analysis (EFA) is used to test the influencing factors and identify factors that are considered appropriate; at the same time, using multivariable linear regression analysis to determine the factors and the level of impact of each factor on the training of high-quality human resources at Thai Nguyen University. Research on the theoretical model of high-quality human resource training includes 5 main influencing factors (see Figure 1):

- Determining training needs (X<sub>1</sub> - measured by five observed variables from x<sub>1</sub> to x<sub>5</sub>): is one of the important, basic and indispensable contents in NLNCLC training. Training needs arise when human resources do not have the necessary knowledge and skills to perform jobs in the present as well as in the future. Identifying training needs will be the premise and basis for setting goals and designing the structure and content of the training program. In vocational and university education, it is necessary to survey and develop professional characteristics of the industry/occupation, a job analysis table and human demand of the labor market to serve as a basis for designing training programs. more complete the training of high-quality human resources [1], [6].

- Training program (X<sub>2</sub> - measured by four observed variables from x<sub>6</sub> to x<sub>9</sub>): The training program needs to be built on the basis of training needs and identified training objectives. According to Cardona & Bravo (2012), a training program is an overall design for a training activity that outlines all the content to be trained, specifying what can be expected of learners after the training course. , outlining the process required to implement

the training content, training methods and methods of testing and evaluating learning outcomes, and all that is arranged according to a tight timetable [ 7).

- Training method (X\_3 - measured by four observed variables  $x_{10}$  to  $x_{13}$ ): Schools need to base themselves on the specific situation of financial capacity, facilities... to choose a training method. be suitable. There are many different training methods and each method has its own advantages and disadvantages. The school can choose one method or combine many training methods, which is low cost and is the most effective method, thereby contributing to improving the training of high quality human resources of the school [2].

- Teaching staff (X\_4 - measured by four observed variables  $x_{14}$  to  $x_{17}$ ): This is an

indispensable factor in the training process of high school human resources. At the same time, the teaching staff is the subject, the determining factor, the special productive force that creates products, is the human resource, and is also the subject of orientation to create the sustainable development of the society [3 ]

- Facilities (X\_5- is measured by three observed variables  $x_{18}$  to  $x_{20}$ ): These are necessary conditions to serve the training of high-quality human resources in Thai Nguyen University. Each training method requires appropriate support means, without them, it is difficult for teaching to achieve the set goal [3].

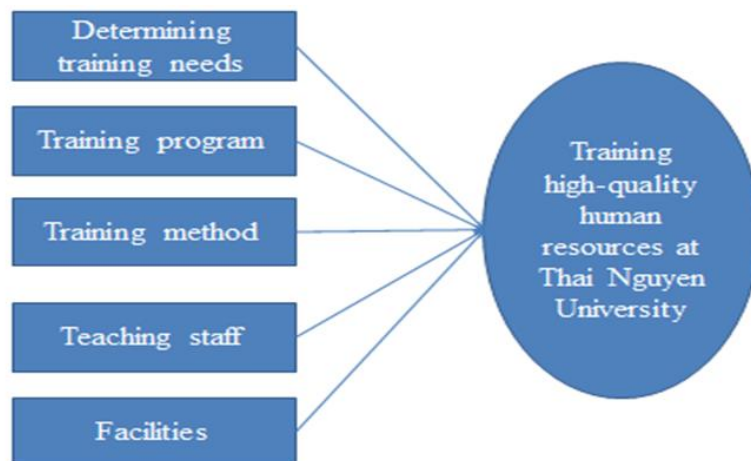


Figure 1: Proposed research model In this study, the author used a Likert scale with scores from 1 to 5 to measure observed variables. Table 1: Variables in the model

$x_1$ : Identify training needs associated with training objectives	$x_{11}$ : Rich and diverse training methods
$x_2$ : Determine the type of object to train	$x_{12}$ : There is a close combination of methods in the training process
$x_3$ : Determine the number of each type of object to be trained	$x_{13}$ : There are many advanced and modern training methods
$x_4$ : Determine the level for each type of object to be trained	$x_{14}$ :The teaching staff are qualified, have solid and in-depth knowledge of the subject
$x_5$ : Clearly define the needs and aspirations of learners	$x_{15}$ : The teaching staff is skilled and solves requests quickly.
$x_6$ : The training program clearly shows the learners' goals, standards of knowledge and skills	$x_{16}$ : The teaching staff of psychology and understanding of learners
$x_7$ : Training program tailored to training needs	$x_{17}$ : The teaching staff meets the academic standards when entering the class
$x_8$ : Allocate training programs and training time reasonably	$x_{18}$ : Meet learning materials
$x_9$ : The training program is carried out according to the schedule	$x_{19}$ : Meet school equipment
$x_{10}$ : Methodical and systematic training	$x_{20}$ : Modern and comfortable facilities

Source: Author's recommendation Since then, the model of high-quality human resource training at Thai Nguyen University has been established as follows:  $Y = f(X_1, X_2, X_3, X_4, X_5)$  Where: Y is the dependent variable and  $X_1, X_2, X_3, X_4, X_5$  is the independent variable.

### III. RESEARCH RESULTS AND DISCUSSION

To apply the model into practice, the author used primary data through direct distribution of questionnaires to 400 students by randomly sampling students studying at Thai Nguyen University. The author uses SPSS 20.0 software to support the analysis, the results of the research model are as follows:

Testing the reliability of the scale (Cronbachs' Alpha test) training high quality human resources at Thai Nguyen University with 20 observed variables belonging to 5 factors. Through

the analysis results, Cronbachs's Alpha coefficient reached 0.758, proving that this scale is usable. However, if we consider the variable-total correlation coefficient, there are 4 variables that are excluded from the model because the value is less than 0.3. Those three variables are  $x_2$  (Determining the type of object to be trained),  $x_4$  (Determining the qualifications for each type of object to be trained),  $x_{11}$  (Rich and diverse training methods),  $x_{17}$  (Teaching staff) students who meet the academic standards when entering the class). Therefore, the remaining 16 measurement variables will be used in exploratory factor analysis (EFA). The second exploratory factor analysis (EFA) results with guaranteed tests are as follows:

- Reliability of observed variables (Factor loading > 0.5)
  - Check the suitability of the model ( $0.5 < KMO = 0.729 < 1$ )
  - Barlett test on correlation of observed variables (Sig < 0.05)
  - Cumulative variance test = 62.182% (Cumulative variance > 50%)
- Table 2: Rotation matrix of factors

	Factor				
	Identify training needs	Education program	Training methods	Teaching staff	Basis material
$x_1$	0,867				
$x_3$	0,765				
$x_5$	0,735				
$x_6$		0,898			
$x_7$		0,877			
$x_8$		0,867			
$x_9$		0,858			
$x_{10}$			0,770		
$x_{12}$			0,645		
$x_{13}$			0,685		
$x_{14}$				0,788	
$x_{15}$				0,697	
$x_{16}$				0,687	
$x_{18}$					0,657
$x_{19}$					0,649
$x_{20}$					0,688

Source: Result of exploratory factor analysis from survey data According to the factor rotation matrix, we have the factor loading coefficients of the variables in Table 2 all greater than 0.5. We have 5 factors drawn and the author still keeps the names of the original factors.

The results of the regression analysis in Table 3 show that, the adjusted coefficient  $R^2 = 65.3\%$ , which means that 65.3% of the variation of high-quality human resource training is explained

by the factors included in the model, and There are other factors that have not been studied. The coefficient Sig.F = 0.00 is much smaller than the significance level  $\alpha = 5\%$ , so the regression model is

significant, that is, the independent variables have an influence on the dependent variable Y. Besides, the degree of the regression model is significant. The exaggerated variance (VIF) of the variables in the model is much smaller than 10, so we can conclude that the variables included in the model do not have multicollinearity. The above analysis

results show that all 5 variables included in the model have Sig statistical significance. < 5%. From the above results, the regression equation to estimate the factors affecting the training of high-quality human resources at Thai Nguyen University is set up as follows:

$$Y = 1,133 + 0,293X_1 + 0,378X_2 + 0,249X_3 + 0,24X_4 + 0,205X_5$$

**Table 3: Linear regression analysis results**

Variable name	Coefficient B	Coefficient Beta	Sig.	VIF
Constant	1,133	-	0,000	
X <sub>1</sub>	0,293	0,303	0,000	1,369
X <sub>2</sub>	0,378	0,349	0,000	1,44
X <sub>3</sub>	0,249	0,284	0,000	1,389
X <sub>4</sub>	0,214	0,278	0,000	1,325
X <sub>5</sub>	0,205	0,246	0,000	1,245
Sig coefficient. of the model			0,000	
Corrected R <sup>2</sup> factor			0,653	

Source: Linear regression analysis results from survey data

Based on the regression equation, 5 variables included in the model are positively correlated with training high quality human resources. In which the factor "Training program" is the factor with the strongest influence (standardized correlation coefficient Beta = 0.349), the next strongest influence is the factor "Determining training needs" (corresponding to standardized correlation coefficient is 0.303), then the factor "Training method" (corresponding to the standardized correlation coefficient is 0.284), followed by the factor "Training staff" (corresponding to standardized correlation coefficient is 0.278), and finally, the factor "Facilities" has the least influence (corresponding to a standardized correlation coefficient of 0.246).

#### IV. CONCLUSION

Experimental research results have identified 5 factors affecting the training of high-quality human resources at Thai Nguyen University according to their importance level: "Training program", "Determining training needs", "Methodology". training", "Training staff", "Facilities". Research results have provided a valuable practical scientific basis for improving the quality of high school human resource training. It is necessary to be flexible in designing training programs, in accordance with the requirements of economic and social development, and to meet the needs of the labor market; On the other hand, it must meet the needs of learners. In addition, the teaching

staff and the school need to play a role in creating a good learning environment for learners.

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